2001 0997
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Pittsburg 2020: A Vision for the 21st Century

CITY OF PITTSBURG GENERAL PLAN

DRAFT ENVIRONMENTAL IMPACT REPORT

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List of Acronyms

ABAG	Association of Bay Area Governments
ADT	Average Daily Trips
BART	Bay Area Rapid Transit
BCDC	Bay Conservation and Development Commission
CEQA	California Environmental Quality Act
EPA	Environmental Protection Agency
BAAQMD	Bay Area Air Quality Management District
BID	Business Improvement District
BNSF	Burlington Northern and Santa Fe Railroad
BMP	Best Management Practice
CALTRANS	California Department of Transportation
CCCFPD	Contra Costa County Fire Protection District
CCTA	Contra Costa Transportation Authority
CCWD	Contra Costa Water District
CCWS	Concord Naval Weapons Station
CDBG	Community Development Block Grant Program
CEQA	California Environmental Quality Act
CIP	Capital Improvement Program
CMA	Congestion Management Agency
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CVP	Central Valley Project
DDSD	Delta Diablo Sanitation District
EBMUD	East Bay Municipal Utility District
EBRPD	East Bay Regional Park District
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ELIHPA	Emergency Low-Income Housing Preservation Act
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
Gpd	Gallons per day
HCD	California Department of Housing and Community Development

HOV	High Occupancy Vehicle
HUD	U.S. Department of Housing & Urban Development
LAFCo	Local Agency Formation Commission
LIHPRAH	Low-Income Housing Preservation and Resident Homeownership Act
LOS	Level of Service
LUST	Leaking Underground Storage Tank
Mgd	Million gallons per day
MTC	Metropolitan Transportation Commission
MDUSD	Mount Diablo Unified School District
MRB	Mortgage Revenue Board
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
PEHDC	Pittsburg Economic and Housing Development Corporation
PUD	Planned Unit Development
PG&E	Pacific Gas and Electric
PD	Planned Development
PUSD	Pittsburg Unified School District
RWQCB	California Regional Water Quality Control Board
ROG	Reactive Organic Compounds
ROW	Right of Way
SLSF	Small-Lot Single Family
SLIC	Spills, Leaks, Investigations and Cleanup
SOI	Sphere of Influence
TCA	California Trade and Commercial Agency
TDM	Transportation Demand Management
TOD	Transit-Oriented Development
TSM	Transportation Systems Management
TRANSPLAN	Transportation Planning Committee of East Contra Costa County
ULL	Urban Limit Line
UST	Underground Storage Tank

1 Executive Summary

This Draft Environmental Impact Report (EIR) evaluates the probable effects of policies in the Pittsburg General Plan. It also identifies mitigation measures to minimize significant impacts and evaluates reasonable alternatives to the proposed project. Three reasonable alternatives are described, in addition to the Proposed Project. A "no-project" alternative discusses the result of not implementing the project or reasonable alternatives, as if the current General Plan continued to guide future development. An environmentally superior alternative is identified in the final stages of the process, after all impacts are identified. Comments generated from public review of this document will be used to revise the Draft EIR and to prepare the Final EIR.

1.1 PROPOSED PROJECT

The proposed Pittsburg General Plan is a new document that replaces the existing 1988 General Plan. The General Plan is comprised of goals, policies, a land use diagram, and other figures (for example, planned transportation system) to guide future development within the City's Planning Area. Additionally, policies within the Downtown Element are intended to replace the 1986 Downtown Specific Plan.

The General Plan includes the seven elements required by State law – Land Use, Transportation, Conservation, Open Space, Safety, Noise, and Housing – as well as optional elements, including Downtown, Growth Management, Urban Design, Economic Development, and Public Facilities.

GUIDING THEMES

Pittsburg is located along the Sacramento River in eastern Contra Costa County. The northern portion of the City is relatively flat, increasing in elevation as it expands into the southern hills. The southern hills form the northern tip of the Diablo Range, which extends from Contra Costa County to Santa Clara County. A historic Downtown is located along the Sacramento River/Suisun Bay waterfront in the northern portion of the City. Major transportation corridors include State Route 4, the Burlington Northern & Santa Fe (BNSF) railroad, and the Bay Area Rapid Transit (BART) rail line.

To respond to growth pressures and planning challenges, the City began the process to update its General Plan in September of 1997. Guiding themes of this update process include:

- *Compact urban form.* All growth, with the exception of the Bay Point unincorporated community and a small amount of clustered low-density residential hillside development, is contiguous to existing City limits.
- *Promotion of Downtown as a focus of activity.* Plan policies seek to increase Downtown population, as well as non-residential activity, to enhance vitality and provide a market for commercial uses. Policies that promote development standards that build on Downtown's traditional urban pattern are identified.
- *Modulated development intensities that reflect accessibility.* Development intensities are modulated to reflect accessibility to transit and services. The General Plan designates highest

intensities in Downtown and around the Pittsburg/Bay Point BART Station, and lowest intensities in the constrained hillside areas.

- *Promotion of infill development.* In order to minimize encroachment into the hillsides and efficiently provide services, the Plan encourages use and revitalization of vacant and underutilized sites. These include areas in and around Downtown (West Tenth Street and Harbor Street), around Railroad Avenue and East Leland Road, the Pittsburg/Bay Point BART station, and complementary and viable uses on vacant sites in existing neighborhoods.
- *Increased connectivity between and within neighborhoods.* Major arterial streets are designated to result in increased connectivity between neighborhoods in different subareas. In addition, policies for locating local streets are included to ensure neighborhood-level connections while providing flexibility to project developers.
- *Designation of mixed-use and pedestrian-oriented activity centers.* New neighborhood centers are envisioned in the form of mixed-use pedestrian-oriented centers. Designated centers include the area surrounding the West Leland Road/San Marco Boulevard intersection. In addition, mixed-use or multi-use development is encouraged surrounding the proposed location of the Railroad Avenue BART Station, between East Leland Road and State Route 4.
- *Increased diversity in housing types.* The General Plan seeks to expand the range of housing types currently available in Pittsburg through designation of sites for low-density hillside development, as well as higher-density residential development in selected locations. Plan policies also provide for increased flexibility in single-family development by encouraging small-lot (Downtown) or clustered (Southern Hills) housing design.
- *Protection of ridgelines and creeksides*, and expansion of the trail and park network. The Diagram illustrates ridgelines protected from development, and a network of open space along creeks in new growth areas that will be realized over time. These open space areas will also facilitate development of a network of bikeways and pedestrian trails.
- *Flexibility and mixed-use areas.* To provide flexibility and encourage mixed-use development, the use and intensity regulations provide incentives for certain uses and mixes in locations such as Downtown and neighborhood centers.

MAGNITUDE OF USES

The Pittsburg Planning Area comprises a total of 27,000 gross acres (42.1 square miles); just under one-third (15.6 square miles) lies within City limits. The community of Bay Point lies in the Sphere of Influence and encompasses 2,300 gross acres. Wetlands and Suisun Bay/Sacramento River environs account for approximately 25 percent of the Planning Area, while vacant, rolling hills constitute approximately 33 percent.

Residential and industrial uses are dominant in the developed portions of the Planning Area. Currently (year 1999), residential uses comprise 2,700 net acres. Approximately 1,500 net acres are occupied by industrial uses, primarily in the northeastern parts of Pittsburg. Commercial uses, encompassing 420 acres, are located principally along major transportation corridors such as Railroad Avenue, Leland Road, Loveridge Road, and State Route 4. An additional 25 percent of the City's developed area is made up of parks and open space.

Major Development Projects, 2000

The City has a substantial inventory of residential projects with development approvals, as well as several planned commercial and industrial complexes. The two largest residential projects – San Marco and Alves Ranch – are both located in the Southwest Hills subarea. Approximately 4,000 housing units are in the pipeline. Business and Community Commercial districts are also planned for the southeastern portion of the City along State Route 4. Two major industrial projects are located along the industrial waterfront area – Los Medanos Energy Facility and Delta Energy Facility.

GENERAL PLAN BUILDOUT

Buildout of the proposed Project would result in a total of 4,640 acres of residential land, over half of which is designated Low Density Residential (single family detached homes). Over 930 acres are designated for commercial activities, primarily divided between Community Commercial and Business Commercial uses. The majority of the City's 1,430 acres of industrial land is located within the Northeast River subarea. Approximately 2,680 parks and 9,110 acres open space constitute remaining lands within the Planning Area (not including Bay Point). Table 1.1-1 shows the City's General Plan land use distribution.

Table 1.1-1
General Plan Distribution, Pittsburg

Land Use Category	*Total Acres*
Residential	
Hillside Low Density	712
Low Density	2,412
Medium Density	340
High Density	290
Downtown Low Density	56
Downtown Medium Density	94
Downtown High Density	24
Commercial	
Community Commercial	398
Business Commercial	390
Downtown Commercial	12
Marine Commercial	39
Service Commercial	91
Industrial	1,429
Parks	2,680
Open Space	9,112
Public / Institutional	468
Utility ROW	1,032
Grand Total	**19,580**

Source: Dyett & Bhatia, 2000.

Buildout of the General Plan, at the assumed densities shown in Table 1.1-2, will result in approximately 29,000 housing units located within the City limits. An estimated population of 83,000 will reside within the City limits, while approximately 21,000 people will live within Bay Point by 2020; resulting in a total Planning Area population of 104,000[1]. Over 16,600 low density, single-family homes would be constructed, in addition to 2,600 higher-density units within the Downtown.

Table 1.1-2
Population at General Plan Buildout, Pittsburg

	Gross Acres	*Assumed Density*	*Total Dwelling Units*	*Assumed Persons per Dwelling Unit*	*Total Population*
Hillside Low Density	710	3 du/ac	2,140	3.2 p/du	6,490
Low Density	2,410	6 du/ac	14,470	3.2 p/du	44,000
Medium Density	340	12 du/ac	4,080	2.8 p/du	10,850
High Density	290	20 du/ac	5,790	2.8 p/du	15,410
Downtown Low Density	60	8 du/ac	450	2.8 p/du	1,190
Downtown Medium Density	90	16 du/ac	1,500	2.6 p/du	3,720
Downtown High Density	20	24 du/ac	580	2.6 p/du	1,430
Grand Total	*3,900*		*29,000*		*83,000*

Source: Dyett & Bhatia, 2000.

Buildout of all commercial and industrial sites within Pittsburg would result in approximately 12 million square feet of commercial space and 12 million square feet of industrial space. This dramatic increase in non-residential building area, in conjunction with increased populations and business expansion throughout East County, will result in a total of 37,900 commercial jobs and 12,300 industrial jobs at buildout (see Table 1.1-3).

Table 1.1-3
Employment at General Plan Buildout, Pittsburg

Land Use	*Gross Acres*	*Assumed Floor Area Ratio*	*Total Building Area*	*Assumed Square Feet per Employee*	*Total Employment*
Community Commercial	400	0.3 FAR	4,161,200	250	16,650
Business Commercial	390	0.4 FAR	5,440,400	400	13,600
Downtown Commercial	10	0.5 FAR	215,100	250	790
Marine Commercial	60	0.5 FAR	1,220,500	300	4,470
Service Commercial	90	0.3 FAR	949,700	400	2,370
Commercial Total	*950*		*11,987,000*		*37,900*
Industrial	1,410	0.2 FAR	12,284,000	1,000	12,300

Source: Dyett & Bhatia, 2000.

[1] City of Pittsburg buildout projections based on land use development assumptions (see Table 2-4), while Bay Point buildout projections based on ABAG *Projections 2000.*

1.2 PROJECT IMPACTS AND MITIGATION

Table 1.2-1 on the following pages presents a summary of the impacts and mitigation measures identified in *Chapter 4: Environmental Setting, Impact Analysis and Mitigation* of this Draft EIR. Because the General Plan's policies are designed to avoid or minimize environmental impacts, the Plan itself is self-mitigating. No additional mitigation measures have been proposed. However, the tables, figures, and policies referenced within the mitigation/General Plan policies in Table 1.2-1 and *Chapter 4: Environmental Setting, Impact Analysis and Mitigation* are those located within the Pittsburg General Plan.

The significance of each impact is also shown in Table 1.2-1, both before and after mitigation. Levels of significance are determined by comparing the impact to thresholds of significance, also described in *Chapter 4: Environmental Setting, Impact Analysis and Mitigation.* Impacts are either "significant," meaning they cross the established threshold, "less than significant," meaning they do not, "potentially significant," meaning they may cross the threshold depending on variable factors (actions by other agencies, economic and market cycles, specific development proposals not foreseen by the Plan, etc), or "beneficial."

Significant, unavoidable impacts caused by full implementation of the General Plan include:

- Increased traffic congestion and decreased Levels of Service (LOS) on State Route 4 and local arterials, including:
    - Railroad Avenue;
    - Pittsburg-Antioch Highway;
    - Leland Road;
    - Loveridge Road;
    - Willow Pass Road;
    - California Avenue;
    - Bailey Road; and
    - Buchanan Road.
- Emission of harmful pollutants (carbon monoxide, particulate matter, and ozone precursors) due to increased traffic, resulting in higher air pollutant levels within the total air basin.

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
4.1	***Land Use***				
4.1-a	New urban development may be incompatible with adjacent, existing uses.	*Potentially significant*	2-P-6	During development review, consider project compatibility with existing surrounding land uses. Ensure that sensitive uses—such as residences, schools, and parks—are not subject to hazardous or unhealthy conditions.	*Less than significant*
			2-P-12	Ensure that buffers – including landscaping, berms, parking areas, and storage facilities – are used to separate potentially incompatible activities.	
			2-P-36	During project review, ensure that all industrial development along public streets and in areas adjacent to Downtown maintain at least a 25 foot wide landscaped buffer (using trees and shrubs for screening) along the street.	
			2-P-38	Encourage the development of office and support uses along street frontages in the Northeast River subarea to buffer heavy industrial activities.	
			2-P-50	Ensure that service commercial development along Solari Street provides adequate buffers (such as landscaping and parking areas along street frontage) to reduce conflicts with adjacent residential units.	
			2-P-58	Ensure that the small business commercial center at the southern end of Railroad Avenue (at Buchanan Road) is compatible with the scale of surrounding uses.	
			5-P-23	During development review, ensure that transitional buffer areas—such as landscaped berms, parking lots, and storage areas—are placed between new residential units and the BNSF railroad tracks along the southern edge of the West Tenth Street Neighborhoods.	
			5-P-32	Require transitional buffers along the edges of new and redevelopment projects adjacent to the industrial uses east of Downtown. Such buffers may include a combination of landscaped berms, parking areas, pedestrian walkways, and storage facilities.	
4.1-b	Proposed land uses and policies under the General Plan may be inconsistent with land use designations and Urban Limit Line in the Contra Costa County General Plan.	*Less than significant*	2-P-1	Review the City's Sphere of Influence (SOI) every 5 years. Ensure necessary annexation and SOI changes through coordination with the County and Local Agency Formation Commission (LAFCo), according to the 10- and 20-year annexation goals illustrated in Figure 2-2.	*Less than significant*

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
4.1-c	Reuse and intensification may result in the loss of existing businesses or displacement of residents.	*Potentially significant*	2-P-7	In the case of resident and/or business displacement due to redevelopment activities, provide tenants / property-owners with fair market values and moving costs.	*Less than significant*
4.2	***Community Character***				
4.2-a	Patterns of new development may promote stronger connections between schools, parks and creeks, commercial centers, and adjacent residential neighborhoods.	*Beneficial*	2-P-47	Ensure that as Loveridge builds out, adequate street connections are provided to efficiently move traffic through and beyond the area's regional and business centers (as designated by the City's traffic LOS standards, see *Chapter 7: Transportation*).	*Beneficial*
			2-P-49	Explore the feasibility of direct pedestrian connections across the BNSF Railroad between Central Addition and Columbia Park Manor neighborhoods.	
			2-P-53	Pursue the extension of the Railroad Avenue linear park along the north side of State Route 4, providing a pedestrian/bicycle connection from the City's major shopping corridor and to the Civic Center and City Park.	
			2-P-64	Work with Los Medanos College and the City of Antioch to undertake a study exploring the viability of a street connection between Leland and Buchanan Roads, along the eastern edge of the College at the border of the two cities.	
			2-P-66	Ensure that new residential development south of Buchanan provides both street and pedestrian connections to adjacent residential areas.	
			2-P-78	During the development of a specific plan for the proposed Railroad Avenue BART Station area, ensure that pedestrian and transit amenities are provided to connect West Leland residents with the Station area.	
			4-P-27	Ensure that all residential developers provide multi-use trails or trailheads connecting to local schools and parks, commercial centers, and regional open spaces.	
			4-P-38	Provide incentives to redevelop blighted commercial properties along Railroad Avenue. Encourage developers to provide pedestrian amenities and focus on connections between the street and surrounding properties. *(Railroad Avenue, State Route 4 to Buchanan Road)*	
			4-P-70	Ensure that all new business commercial employers provide safe and convenient pedestrian and bicycle connections to adjacent neighborhoods, the proposed BART Station, Delta De Anza Trail, Railroad Avenue Linear Park, and employment and activity centers. *(Railroad Avenue BART Station Area)*	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
			4-P-73	Pursue the development of a linear park along West Leland Road, connecting the Pittsburg/Bay Point BART Station Area to San Marco Village. *(San Marco Village)*	
			4-P-80	Ensure that new developments provide an integrated pattern of streets and pedestrian paths that provide connections between neighborhoods. As part of the City's Subdivision Regulations, establish street connectivity requirements.	
			5-P-33	During redevelopment of the West Tenth Street Neighborhoods, require that the grid street network and pedestrian connections are maintained.	
			5-P-41	Improve the pedestrian path along Marina Boulevard, connecting the Downtown core to the waterfront/marina area. Provide a wide path right-of-way, way-finding signage, landscaping, interpretive plaques, and street lighting.	
			7-P-37	Develop a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with City and County open space areas.	
			7-P-38	Ensure that residential and commercial developments provide pedestrian pathways between lots for direct routes to commercial centers, schools, and transit facilities.	
			8-P-18	Encourage new residential development in hillside areas to develop public trails and/or trailheads providing connections to other regional and local open spaces.	
			8-P-33	Emphasize the integration of land uses and activities surrounding Los Medanos Community College. Encourage physical connections between the College and surrounding neighborhoods, commercial areas, and open space resources.	
4.2-b	New development may block views of hills and major ridgelines.	*Potentially significant*	4-P-1	Require ridge setbacks for all new hillside development, including: a. Building pads located at least 100 feet away from the crest of a major ridgeline (measured horizontally from the centerline), as designated in Figure 4-3; and b. Structural elements of buildings, including rooflines and taller ancillary elements, located at least 100 ft below the crest of a major ridgeline, as designated in Figure 4-3.	*Less than significant*
			4-P-2	As part of the development review process, require design review of proposed hillside development. Ensure that: a. Hillside development is clustered in small valleys and behind minor ridgelines, to preserve more prominent views of the southern hills; and b. Hillside streets are designed to allow open views by limiting the building of	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				structures or planting of tall trees along the southern edge or terminus of streets.	
			4-P-9	Ensure that new hillside development preserves unique natural features by mapping all natural features as part of development applications, including landforms, mature tree stands, rock outcroppings, creekways, and ridgelines. During development and design review, ensure that site layout is sensitive to such mapped features.	
			4-P-15	Minimize the visual prominence of hillside development by taking advantage of existing site features for screening, such as tree clusters, depressions in topography, setback hillside plateau areas, and other natural features.	
			4-P-17	Encourage clustering of Hillside Low-Density units in the southern hills, with resulting pockets of open space adjacent to major ridgelines and hillside slopes. Allow density bonuses of 10 percent (maximum) for preservation of 40 percent or more of a project's site area as open space.	
			4-P-18	Allow flexible (for example, staggered) front and side building setbacks (including zero-lot-line and attached conditions) within clustered hillside residential areas if this allowance will protect an existing slope.	
			4-P-20	As part of the City's Hillside Development Standards, encourage architectural design that reflects the undulating forms of the hillside setting, such as "breaking" buildings and rooflines into several smaller components (see Figure 4-6).	
			4-P-25	Encourage developers to align and construct streets along natural grades. Minimize visibility of streets from other areas within the City (see Figure 4-7).	
4.2-c	New development may alter the visual character of the hillsides.	*Significant*	4-P-9	Ensure that new hillside development preserves unique natural features by mapping all natural features as part of development applications, including landforms, mature tree stands, rock outcroppings, creekways, and ridgelines. During development and design review, ensure that site layout is sensitive to such mapped features.	*Less than significant*
			4-P-11	Avoid grading of slopes that are greater than 30 percent. During review of development plans, ensure that necessary grading respects significant natural features and visually blends with adjacent properties.	
			4-P-14	Preserve natural creekways and drainage courses as close as possible to their natural location and appearance.	
			4-P-15	Minimize the visual prominence of hillside development by taking advantage of existing site features for screening, such as tree clusters, depressions in topography, setback hillside plateau areas, and other natural features.	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				setback hillside plateau areas, and other natural features.	
			4-P-17	Encourage clustering of Hillside Low-Density units in the southern hills, with resulting pockets of open space adjacent to major ridgelines and hillside slopes. Allow density bonuses of 10 percent (maximum) for preservation of 40 percent or more of a project's site area as open space.	
			4-P-20	As part of the City's Hillside Development Standards, encourage architectural design that reflects the undulating forms of the hillside setting, such as "breaking" buildings and rooflines into several smaller components (see Figure 4-6).	
			4-P-21	Building forms should be "stepped" to conform to site topography. Encourage use of rooftop terraces and decks atop lower stories.	
			4-P-22	During development review, ensure that residential rooflines are oriented in the same direction as the natural hillside slope and generally no more than 20 percent steeper than the natural slope contour.	
			4-P-25	Encourage developers to align and construct streets along natural grades. Minimize visibility of streets from other areas within the City (see Figure 4-7).	
4.2-d	The General Plan may result in increased public access to the Suisun Bay waterfront from Downtown Commercial Core and local trails/linear parks.	*Beneficial*	5-P-18	Pursue the dedication of public open space during the redevelopment of infill sites within the Downtown, particularly adjacent to the waterfront area.	*Beneficial*
			5-P-25	Continue streetscape beautification efforts within the Downtown, focusing on improving the visual connection between the Commercial Core and the waterfront.	
			5-P-39	Pursue acquisition of the Railroad Avenue terminus by transferring existing private recreation facilities due west of the adjacent Medium Density Residential neighborhood. Redesign the public plaza to ensure that both visual and physical access from Downtown is achieved.	
			5-P-40	Encourage design of the Harbor Street terminus to provide an unobstructed view of New York Slough and a 30-ft wide promenade to the waterfront. This linear park/promenade should function as a public square, with buildings oriented toward it and pedestrian amenities leading from East Third Street to the shoreline.	
			5-P-41	Improve the pedestrian path along Marina Boulevard, connecting the Downtown core to the waterfront/marina area. Provide a wide path right-of-way, way-finding signage, landscaping, interpretive plaques, and street lighting.	
			5-P-48	Develop a bikeway along the Downtown waterfront from Central Harbor Park to the proposed Marine Commercial Center, adjacent to the proposed Marina Boulevard pedestrian path.	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				vard pedestrian path.	
4.2-e	Increased residential densities and mixed-use development may be incongruous with existing Downtown character.	*Less than significant*	5-P-2	Emphasize Downtown as Pittsburg's historic center, providing an identity and a sense of place for the entire city by establishing a focused revitalization strategy that integrates the initiatives of the Economic Development Strategy.	*Less than significant*
			5-P-26	Encourage the repetition of key historical architectural features—such as windows and displays, cornice details, and roofline/pitch elements—in the redevelopment of commercial structures in Downtown.	
			5-P-28	Ensure that new construction and remodeling throughout Downtown (including the New York Landing Historical District) are reviewed for design compatibility by the Planning Commission and Historical Resources Commission.	
			5-P-33	During redevelopment of the West Tenth Street Neighborhoods, require that the grid street network and pedestrian connections be maintained.	
			5-P-35	Retain existing pedestrian-scale lampposts and amenities along sidewalks within Downtown.	
			5-P-38	Encourage developers to orient exterior design elements of Commercial Core structures toward pedestrians (for example: large display windows on street frontage; weather coverings over entryways), and extend the historical flavor of architectural features within the New York Landing Historical District to the intersection of Railroad Avenue and Tenth Street.	
4.3	***Transportation***				
4.3-a	New urban development may result in increased traffic exceeding Level of Service (LOS) standards for roadway segments and signalized intersections.	*Significant*	7-G-1	Adopt local intersection service level standards that conform to CCTA's Growth Management requirements for Routes of Regional Significance at signalized intersections. Define intersections within Pittsburg city limits as being located in rural, semi-rural, suburban, urban, or central business district areas, as designated in Figure 7-2. • Rural—LOS low C (volume to capacity ratio 0.70 to 0.74) • Semi-Rural—LOS high C (volume to capacity ratio 0.75 to 0.79) • Suburban—LOS low D (volume to capacity ratio 0.80 to 0.84) • Urban—LOS high D (volume to capacity ratio 0.85 to 0.89) • Downtown—LOS high D (volume to capacity ratio 0.85 to 0.89)	*Significant*
			7-P-6	Design roadway improvements and evaluate development proposals based on LOS standards prescribed in Policy 7-G-1.	

Table 1.2-1
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	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				standards prescribed in Policy 7-G-1.	
			7-P-7	Implement Transportation Element improvements prior to deterioration in levels of service below those prescribed in Policy 7-G-1.	
			7-P-8	Improve intersections as needed to maintain safety on major roadways and traffic levels of service, as described in Policy 7-G-1.	
			7-P-11	Maximize the carrying capacity of arterial roadways by controlling the number of intersections and driveways, minimizing residential access, implementing Transportation Systems Management (TSM) measures, and requiring sufficient on-site parking to meet the needs of each project (see also Table 7-1).	
			7-P-12	Continue to collect fees, plan and design for the future construction of Buchanan Bypass following a feasibility and environmental impact study to determine the precise alignment, costs, mitigation measures, and impacts on adjacent uses.	
			7-P-14	Increase access to alternative north-south routes providing connection to State Route 4, other than Railroad Avenue.	
			7-P-15	Support Caltrans' planned improvements to the Railroad Avenue and Loveridge Road interchanges in conjunction with State Route 4 widening projects. Work with Federal, State and regional authorities to ensure timely completion of these projects needed to adequately serve local circulation needs.	
			7-P-16	Continue to collect fees for the extension of West Leland Road to Willow Pass Road. Require new development adjacent to the extension to dedicate right-of-way and construct or fund new intersections and frontage improvements.	
			7-P-17	Pursue the design and construction of an interchange/overpass at State Route 4 and Range Road. Work with Caltrans to design an interchange facility that will accommodate future traffic demands.	
4.3-b	New urban development and intensification of existing areas may result in increased needs for transit services not available through existing transit services and facilities.	*Potentially significant*	7-P-26	Require mitigation for development proposals which increase transit demand above the service levels provided by public transit operators and agencies.	*Less than significant*
			7-P-27	Support the expansion of the existing transit service area and an increase in the service levels of existing transit. Support increased Tri-Delta and County Connection express bus service to the Pittsburg/Bay Point BART Station to reduce traffic demand on State Route 4.	
			7-P-28	Encourage the extension of BART to Railroad Avenue within the median of State Route 4. Cooperate with BART and regional agencies to develop station area plans and transit-oriented development patterns.	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				and transit-oriented development patterns.	
			7-P-29	Preserve options for future transit use when designing improvements for roadways. Ensure that developers provide bus turnouts and/or shelters, where appropriate, as part of projects.	
			7-P-30	Work with Tri-Delta and planning area residents to plan for local bus routes that more effectively serve potential riders within local neighborhoods.	
4.3-c	New urban development may create additional demand for pedestrian and bicycle connections and facilities.	*Potentially significant*	7-P-32	Require mitigation for development proposals which result in potential conflicts, or fail to provide adequate access, for pedestrians and bicycles.	*Less than significant*
			7-P-33	As part of development approval, ensure that safe and contiguous routes for pedestrians and bicyclists are provided within new development projects.	
			7-P-37	Develop a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with City and County open space areas.	
			7-P-39	Ensure provision of sufficiently wide sidewalks and pedestrian paths in all new residential development. Ensure the provision of multi-use trails or trailheads within new hillside developments, preferably connecting to the regional trail network.	
			7-P-41	Modify the City's Engineering Design Standards to require installation of median refuges at heavily used pedestrian crossings (minimum six feet wide) on arterial streets with four or more travel lanes, where roadway width allows.	
			7-P-42	Provide adequate roadway width dedications for bicycle lanes, paths, and routes as designated in Figure 7-4.	
			7-P-46	Develop a multi-use bicycle path (approx. 2.5 miles) along the abandoned railroad tracks north of Willow Pass Road, providing linkage between Downtown and the Stake Point/Marina area.	
			7-P-48	Pursue construction of a bicycle path connecting Railroad Avenue to North Parkside Drive through City Park. Include appropriate signage and storage facilities.	
			7-P-50	Consider redesigning the Railroad Avenue linear park to accommodate bicycles. Ensure that future greenways throughout the City—such as the proposed West Leland Road linear park—contain multi-use paths.	
4.4	***Air Quality***				

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
4.4-a	Development under the General Plan may lead to increased emissions of carbon monoxide, ozone precursors, and particulate matter, and degradation of local air quality.	*Potentially significant*	7-G-17	Encourage major employers to develop and implement transportation demand management (TDM) programs to reduce peak-period trip generation.	*Significant & unavoidable*
			7-P-51	Encourage major employers (for example: USS-POSCO, DOW Chemical, City of Pittsburg) to adopt TDM programs that would reduce peak-period trip generation by 15 percent or more.	
			7-P-52	Favor TDM programs that limit vehicle use over those that extend the commute hour.	
			7-P-53	During review of development plans, encourage major employers to establish designated carpool parking areas in preferable on-site locations (for example, under parking shelters or closest to main entryways).	
			9-P-25	Cooperate with the Bay Area Air Quality Management District (BAAQMD) to achieve emissions reductions for ozone and it's precursor, PM-10, by implementation of air pollution control measures as required by State and Federal statutes.	
			9-P-29	Minimize emissions and air pollution from City operations by using alternative-fuel vehicles, as feasible.	
4.4-b	The General Plan may be inconsistent with the 1997 Clean Air Plan.	*Significant*	7-P-23	Develop procedures and guidelines to mitigate neighborhood traffic impacts in areas where traffic speeds or volumes exceed posted speed limits or standards established above.	*Significant & unavoidable*
			7-P-29	Preserve options for future transit use when designing improvements for roadways. Ensure that developers provide bus turnouts and/or shelters, where appropriate, as part of projects.	
			7-P-31	Work with Tri-Delta and County Connection to schedule signal timing for arterials with heavy bus traffic, where air quality benefits can be demonstrated.	
			7-P-33	As part of development approval, ensure that safe and contiguous routes for pedestrians and bicyclists are provided within new development projects.	
			7-P-36	Designate a Bicycle and Pedestrian Program Manager for the City of Pittsburg.	
			7-P-37	Develop a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with City and County open space areas.	
			7-P-39	Ensure provision of sufficiently wide sidewalks and pedestrian paths in all new residential development. Ensure the provision of multi-use trails or trailheads within new hillside developments, preferably connecting to the regional trail network.	

Table 1.2-1
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	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				new hillside developments, preferably connecting to the regional trail network.	
			7-P-42	Provide adequate roadway width dedications for bicycle lanes, paths, and routes as designated in Figure 7-4.	
			7-P-43	Develop a city-wide Bicycle Master Plan by year 2005. Cooperate with the Contra Costa County RTPC in implementing construction of bicycle facilities within the Bicycle Action Plan.	
			7-P-44	During review of development projects, encourage bike storage and other alternative transportation facilities at employment sites, public facilities, and multi-family residential complexes.	
			7-P-51	Encourage major employers (for example: USS-POSCO, DOW Chemical, City of Pittsburg) to adopt TDM programs that would reduce peak-period trip generation by 15 percent or more.	
			7-P-54	Allow the reduction of transportation impact fees on new non-residential development commensurate with provision of TDM measures.	
4.4-c	Construction, grading, and excavation associated with new development and reuse may generate dust and other air particulates.	*Potentially significant*	9-P-27	Adopt the standard construction dust abatement measures drafted by Bay Area Air Quality Management District (BAAQMD).	*Less than significant*
			10-P-5	Ensure the installation of fencing around construction sites to reduce wind velocity and soil transport at the sites.	
4.5	***Parks, Open Space & Agricultural Resources***				
4.5-a	Future development may create a shortage of neighborhood park facilities accessible to all residents.	*Potentially significant*	8-P-1	Maintain a neighborhood and community park standard of 5 acres of public parkland per 1,000 residents.	*Less than significant*
			8-P-2	Pursue the development of park and recreation facilities within one-half mile of all homes.	
			8-P-3	Develop public parks and recreational facilities that are equitably distributed throughout the urbanized area, and provide neighborhood recreation facilities in existing neighborhoods where such facilities are presently lacking.	
			8-P-5	Maintain park and recreation facility standards for new development to serve both residents and employees, attainable through dedication of parkland or payment of in-lieu fees.	
			8-P-10	Encourage dedication of fully developed parks rather than in-lieu fees. When in-lieu fees are collected, ensure that they are spent acquiring and developing new park	

Table 1.2-1
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	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				fees are collected, ensure that they are spent acquiring and developing new park sites within a reasonable amount of time.	
			8-P-11	Ensure that all parks acquired through dedication are at least 2 acres in size within new residential developments (target 5 acres). Accept smaller visual open space areas in new commercial and industrial development for parkland dedications.	
			8-P-12	Limit parkland dedications to flat, usable parcels within new residential neighborhoods. Ensure that such park sites provide open, grassy areas for informal recreational play (such as football or soccer).	
4.5-b	New residential development in the southern hillsides may reduce visual and passive recreational access to surrounding open space areas.	*Potentially significant*	4-P-15	Minimize the visual prominence of hillside development by taking advantage of existing site features for screening, such as tree clusters, depressions in topography, setback hillside plateau areas, and other natural features.	*Less than significant*
			4-P-17	Encourage clustering of Hillside Low-Density units in the southern hills, with resulting pockets of open space adjacent to major ridgelines and hillside slopes. Allow density bonuses of 10 percent (maximum) for preservation of 40 percent or more of a project's site area as open space.	
			4-P-27	Ensure that all residential developers provide multi-use trails or trailheads connecting to local schools and parks, commercial centers, and regional open spaces.	
			8-P-15	Cooperate with regional agencies to develop a "Bay to Black Diamond" trail through the City, providing a diversity of passive recreational opportunities and unique vistas.	
			8-P-17	Pursue the development and extension of local and regional trails throughout the Planning Area by utilizing available public utility rights-of-ways including: • *Kirker Creek.* The Kirker Creek easement could be developed as a creekside trail, connecting other trails and open spaces throughout the City with the hiking trails in the Black Diamond Mines Regional Preserve. • *Contra Costa Canal.* The Contra Costa Canal provides a meandering right-of-way throughout the southern portion of Pittsburg. A trail along this right-of-way could link several neighborhoods with the Railroad Avenue commercial corridor. • *PG&E Utility ROW.* PG&E holds a right-of-way for the power/utility lines that run north-south from the southern hills to the power plant on the waterfront, an ideal corridor for public access.	

Table 1.2-1
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	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
			8-P-18	Encourage new residential development in hillside areas to develop public trails and/or trailheads providing connections to other regional and local open spaces.	
4.5-c	Expansion of residential development into the southern hills may result in loss of prime farmland, or farmland of statewide or local importance.	*Less than significant*	8-P-19	Preserve land under Williamson Act contract in agriculture, consistent with State law, until urban services are available and expansion of development would occur in an orderly and contiguous fashion.	*Less than significant*
			9-P-5	Work with Contra Costa County, the East Bay Regional Park District, and the City of Antioch, to expand the regional open-space system in the southern hills to preserve California annual grasslands habitat.	
			9-P-7	During the design of hillside residential projects, encourage clustering of housing to preserve large, unbroken blocks of open space, particularly within sensitive habitat areas. Encourage the provision of wildlife corridors to ensure the integrity of habitat linkages.	
4.6	***Public Schools***				
4.6-a	New residential development in the Planning Area may generate additional student enrollment that would need to be accommodated by Mount Diablo Unified School District.	*Potentially significant*	8-P-29	Work with Mount Diablo Unified School District to ensure that the timing of school construction and/or expansion is coordinated with phasing of new residential development.	*Less than significant*
			8-P-31	As part of development review for large residential subdivisions (greater than 100 units), evaluate the need for new school sites. If needed, encourage subdivision design to accommodate school facilities and cooperate with the school districts in acquisition of those sites.	
4.6-b	New development may generate additional high school student enrollment beyond current capacity.	*Potentially significant*	2-P-98	Support efforts by Mount Diablo Unified School District to establish a public high school in Bay Point.	*Less than significant*
			8-P-30	Designate adequate land area within MDUSD boundaries for the construction of a new high school facility.	
4.7	***Fire Safety & Emergency***				
4.7-a	New development in the hillsides may be exposed to the risk of wildland and urban-interface fire hazards.	*Potentially significant*	2-P-24	Ensure that new hillside development utilizes fire-resistant building materials, per the Uniform Building Code. Require that all residential units adjacent to open slopes maintain a 30-ft setback with fire-resistant landscaping.	*Less than significant*
			2-P-25	Minimize single-access residential neighborhoods in the hills; maximize access for fire and emergency response personnel.	
			11-P-5	Work with Contra Costa Water District in planning the development of new pressure zones as needed to ensure adequate fire flows in hillside areas.	

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	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				sure zones as needed to ensure adequate fire flows in hillside areas.	
			11-P-22	Amend the subdivision regulations to include a requirement for detailed fire prevention and control, including community firebreaks, for projects in high and extreme hazard areas.	
			11-P-23	Review and amend ordinances that regulate development in potentially hazardous locations to require adequate protection, such as fire-resistant roofing, building materials, and landscaping.	
			11-P-24	Cooperate with Contra Costa County Fire Protection District (CCCFPD) to ensure that all new development is constructed within the 1.5-mile response radii from a fire station.	
4.7-b	Some new development in the southern hills may not be accessible by fire personnel within established response times.	*Potentially significant*	2-P-25	Minimize single-access residential neighborhoods in the hills; maximize access for fire and emergency response personnel.	*Less than significant*
			11-P-24	Cooperate with Contra Costa County Fire Protection District (CCCFPD) to ensure that all new development is constructed within the 1.5-mile response radii from a fire station.	
			11-P-26	Cooperate with CCCFPD in obtaining a site for a new fire station (or replacement for Station 86) south of State Route 4 and west of Bailey Road.	
4.8	***Water, Wastewater & Solid Waste***				
4.8-a	New development may increase demand for water, which may exceed the City's existing distribution and treatment capacities.	*Potentially significant*	11-P-2	Implement, as needed, replacements and/or expansions to the existing system of water mains through the City's Capital Improvement Program.	*Less than significant*
			11-P-4	Work with CCWD to develop a program ensuring adequate provision of raw water supplies during potential emergency water demands.	
			11-P-8	Develop and implement a Recycled Water Ordinance, requiring the installation and use of recycled water supplies from the new DDSD Reclamation Plant.	
4.8-b	New development may generate wastewater flows that exceed collection and treatment capacities available through the City and DDSD.	*Potentially significant*	11-P-9	Work with Delta Diablo Sanitation District (DDSD) in planning the expansion of the wastewater treatment plant.	*Less than significant*
			11-P-10	Pursue replacement and/or expansion of the City's trunk sewer system, as demand increases, particularly in newer portions of the system south of State Route 4.	
			11-P-13	Work with Delta Diablo Sanitation District (DDSD) to promote the use of recycled water for irrigation of large planted areas, such as business/industrial campus projects, City parks, and street medians.	

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4.8-c	New development may generate additional solid waste, as well as demand for recycling and composting services, that may exceed existing disposal capacities.	*Potentially significant*	11-P-18	Work with Pittsburg Disposal Services to increase participation in curbside recycling programs for residential neighborhoods.	*Less than significant*
			11-P-19	Promote the importance of recycling industrial and construction wastes.	
			11-P-21	Encourage builders to incorporate interior and exterior storage areas for recyclables into new or remodeled residential, commercial, and industrial structures.	
4.9	***Biological Resources***				
4.9-a	Expansion of urban land uses under the General Plan may result in loss of sensitive habitat areas.	*Potentially significant*	9-P-1	Cooperate with State and federal agencies to ensure that development does not substantially affect special status species, as listed in Table 9-1. Conduct assessments of biological resources prior to approval of development within 300 feet of creekways, wetlands, or habitat areas of identified special status species, as depicted in Figure 9-1.	*Less than significant*
			9-P-2	Establish an on-going program to remove and prevent the re-establishment of invasive species and restore native species as part of development approvals on sites that include ecologically sensitive habitat.	
			9-P-5	Work with Contra Costa County, the East Bay Regional Park District, and the City of Antioch, to expand the regional open-space system in the southern hills to preserve California annual grasslands habitat.	
			9-P-7	During the design of hillside residential projects, encourage clustering of housing to preserve large, unbroken blocks of open space, particularly within sensitive habitat areas. Encourage the provision of wildlife corridors to ensure the integrity of habitat linkages.	
			9-P-9	Establish creek protection areas along riparian corridors, extending a minimum of 50 feet laterally from the tops of streambanks. Setback buffers for habitat areas of identified special status species and wetlands may be expanded to 150 feet, as needed to preserve ecological resources. No development should occur within these buffer areas, except as part of greenway enhancement (for example, trails and bikeways).	
			9-P-11	Ensure that special-status species and sensitive habitat areas are preserved during redevelopment and intensification of industrial properties along the Suisun Bay waterfront. Limit dredging and filling of wetlands and marshlands, particularly adjacent to Browns Island Preserve.	

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	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
4.9-b	Redevelopment and expansion of marine commercial and industrial uses along the Suisun Bay/Delta shoreline may result in degradation of wetlands habitat.	*Potentially significant*	9-P-1	Cooperate with State and federal agencies to ensure that development does not substantially affect special status species, as listed in Table 9-1. Conduct assessments of biological resources prior to approval of development within 300 feet of creekways, wetlands, or habitat areas of identified special status species, as depicted in Figure 9-1.	*Less than significant*
			9-P-10	Protect and restore threatened natural resources, such as estuaries, tidal zones, marine life, wetlands, and waterfowl habitat.	
			9-P-11	Ensure that special-status species and sensitive habitat areas are preserved during redevelopment and intensification of industrial properties along the Suisun Bay waterfront. Limit dredging and filling of wetlands and marshlands, particularly adjacent to Browns Island Preserve.	
			9-P-12	Work with industrial property-owners along the waterfront to improve urban runoff and water quality levels within Suisun Bay wetlands.	
4.9-c	New development may result in the introduction and spread of non-native invasive plant species.	*Potentially significant*	9-P-2	Establish an on-going program to remove and prevent the re-establishment of invasive species and restore native species as part of development approvals on sites that include ecologically sensitive habitat.	*Less than significant*
			9-P-3	Participate in the development of a regional Habitat Conservation Plan (HCP) for preservation of native species throughout Contra Costa County.	
			9-P-8	As a condition of approval of new development, ensure revegetation of cut-and-fill slopes with native plant species.	
4.10	***Historical & Cultural Resources***				
4.10-a	Redevelopment within Downtown may adversely affect identified historic resources within New York Landing Historical District.	*Potentially significant*	5-P-26	Encourage the repetition of key historical architectural features—such as windows and displays, cornice details, and roofline/pitch elements—in the redevelopment of commercial structures in Downtown.	*Less than significant*
			5-P-27	Continue the preservation, rehabilitation, and reuse of historically significant structures within the Downtown (as designated in Figure 5-8).	
			5-P-28	Ensure that new construction and remodeling throughout Downtown (including the New York Landing Historical District) are reviewed for design compatibility by the Planning Commission and Historical Resources Commission.	
			9-P-31	Encourage the preservation of varied architectural styles that reflect the cultural, industrial, social, economic, political and architectural phases of the City's history.	

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	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
			9-P-32	Expand the role of the City's Historical Resources Commission, currently responsible for only the New York Landing Historical District, to include all historical resources. The Commission should be responsible for designating historical resources, working with the Planning Commission on reviewing development proposals for historical sites, and acting as the community's liaison on these issues.	
			9-P-34	Redefine the New York Landing Historical District to designate and preserve historical structures not currently located within the district boundaries.	
4.10-b	Excavation and construction associated with future development in the City may disrupt an unidentified prehistoric or archeological site	*Potentially significant*	9-P-36	Ensure the protection of known archaeological resources in the city by acquiring a records review for any development proposed in areas of known resources. If such resources are found, limit urban development in the vicinity or account for the resources.	*Less than significant*
			9-P-37	In accordance with State law, ensure the preparation of a resource mitigation plan and monitoring program by a qualified archaeologist in the event that archaeological resources are uncovered.	
			9-P-38	If archeological resources are found during ground-breaking for new urban development, halt construction immediately and conduct an archeological investigation to collect all valuable remnants.	
4.11	***Hazardous Materials***				
4.11-a	Land use distribution may result in location of additional industrial and other facilities with potential for generating hazardous wastes or spills.	*Potentially significant*	5-P-32	Require transitional buffers along the edges of new and redevelopment projects adjacent to the industrial uses east of Downtown. Such buffers may include a combination of landscaped berms, parking areas, pedestrian walkways, and storage facilities.	*Less than significant*
			10-P-31	Cooperate with other public agencies in the formation of a hazardous-materials team, consisting of specially-trained personnel from all East County public safety agencies, to address the reduction, safe transport, and clean-up of hazardous materials.	
			10-P-32	Designate and map brownfield sites to educate future landowners about contamination from previous uses. Work directly with willing landowners in the clean-up of brownfield sites, particularly in areas with redevelopment potential.	
			10-P-33	Prevent the spread of hazardous leaks and spills from industrial facilities to residential neighborhoods and community focal points, such as Downtown.	

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Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
4.11-b	Expansion of urban land uses and regional roadways may increase exposure to hazardous materials, wastes, and potential spill incidents during transport.	*Potentially significant*	10-P-31	Cooperate with other public agencies in the formation of a hazardous-materials team, consisting of specially-trained personnel from all East County public safety agencies, to address the reduction, safe transport, and clean-up of hazardous materials.	*Less than significant*
			10-P-34	Identify appropriate regional and local routes for transport of hazardous materials and wastes. Ensure that fire and emergency personnel are easily accessible for response to spill incidences on such routes.	
4.12	***Geology, Soils & Seismic Hazards***				
4.12-a	New development in the Planning Area may expose residents to landslide, soil slump, and other geologic hazards.	*Potentially significant*	10-P-1	Ensure preparation of a soils report by a City-approved engineer or geologist in areas identified as having geological hazards in Figure 10-1, as part of development review.	*Less than significant*
			10-P-2	Limit future development from occurring on slopes greater then 30% (as designated in Figure 10-1).	
			10-P-3	Regulate the grading and development of hillside areas for new urban land uses. Ensure that such new uses are constructed to reduce erosion and landsliding hazards: • Limit cut slopes to 3:1, except where an engineering geologist can establish that a steeper slope would perform satisfactorily over the long term. • Encourage use of retaining walls or rock-filled crib walls as an alternative to high cut slopes. • Ensure revegetation of cut-and-fill slopes to control erosion. • Ensure blending of cut-and-fill slopes within existing contours, and provision of horizontal variation, in order to mitigate the artificial appearance of engineered slopes.	
			10-P-8	During development review, ensure that new development on unstable slopes (as designated in Figure 10-1) is designed to avoid potential soil creep and debris flow hazards. Avoid concentrating runoff within swales and gullies, particularly where cut-and-fill has occurred.	
			10-P-9	Ensure geotechnical studies prior to development approval in geologic hazard areas, as shown in Figure 10-1. Contract comprehensive geologic and engineering studies of critical structures regardless of location.	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
			10-P-11	Form geological hazard abatement districts (GHADs) prior to development approval in unstable hillside areas (as designated in Figure 10-1) to ensure that geotechnical mitigation measures are maintained over the long-term, and that financial risks are equitably shared among owners and not borne by the City.	
			10-P-13	During rehabilitation and redevelopment of industrial properties along the Suisun Bay waterfront, ensure that geotechnical mitigation measures are used to prevent collapse of structures in the event that liquefaction occurs.	
			10-P-14	Review and amend City ordinances, including the Building Code, that regulate development in potentially hazardous locations to ensure adequate protection from geologic hazards.	
4.12-b	Redevelopment of sites along the Suisun Bay waterfront may subject greater population to liquefaction, tsunami, and other seismic hazards.	*Potentially significant*	10-P-1	Ensure preparation of a soils report by a City-approved engineer or geologist in areas identified as having geological hazards in Figure 10-1, as part of development review.	*Less than significant*
			10-P-9	Ensure geotechnical studies prior to development approval in geologic hazard areas, as shown in Figure 10-1. Contract comprehensive geologic and engineering studies of critical structures regardless of location.	
			10-P-13	During rehabilitation and redevelopment of industrial properties along the Suisun Bay waterfront, ensure that geotechnical mitigation measures are used to prevent collapse of structures in the event that liquefaction occurs.	
			10-P-17	Ensure detailed analysis and mitigation of seismic hazard risk for new development in unstable slope or potential liquefaction areas (as designated in Figure 10-1). Limit the location of critical facilities, such as hospitals, schools, and police stations, in such areas.	
4.12-c	Development on new and infill sites may subject greater population to ground shaking and other seismic hazards.	*Potentially significant*	10-P-9	Ensure geotechnical studies prior to development approval in geologic hazard areas, as shown in Figure 10-1. Contract comprehensive geologic and engineering studies of critical structures regardless of location.	*Less than significant*
			10-P-15	Develop standards for adequate setbacks from potentially active fault traces (as designated in Figure 10-2) for structures intended for human occupancy. Allow roads to be built over potentially active faults only where alternatives are impractical.	
			10-P-16	Ensure compliance with the current Uniform Building Code during development review. Explore programs that would build incentives to retrofit unreinforced masonry buildings.	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				sonry buildings.	
			10-P-17	Ensure detailed analysis and mitigation of seismic hazard risk for new development in unstable slope or potential liquefaction areas (as designated in Figure 10-1). Limit the location of critical facilities, such as hospitals, schools, and police stations, in such areas.	
4.13	***Drainage, Flooding & Water Quality***				
4.13-a	Land use distribution may result in exposure of new residents near creeks and drainage channels to flooding hazards.	*Potentially significant*	9-P-14	Establish development standards for new construction adjacent to riparian zones to reduce sedimentation and flooding. Standards should include: • Requirements that low berms or other temporary structures such as protection fences be built between a construction site and riparian corridor to preclude sheet-flooding stormwater from entering the corridors during the construction period. • Requirements for installation of storm sewers before construction occurs to collect stormwater runoff during construction	*Less than significant*
			9-P-15	To prevent additional flood hazards in the Kirker Creek watershed, ensure that new development minimizes paved areas, retaining large blocks of undisturbed, naturally vegetated habitat to allow for water infiltration.	
			10-P-18	Evaluate storm drainage needs for each development project in the context of demand and capacity when the drainage area is fully developed. Ensure drainage improvements or other mitigation of the project's impacts on the storm drainage system appropriate to the project's share of the cumulative effect.	
			10-P-19	Assure through the Master Drainage Plan and development ordinances that proposed new development adequately provides for on-site and downstream mitigation of potential flood hazards.	
			10-P-21	Encourage the formation of flood control assessment districts for those areas within the 100- and 500-year flood plains (as designated in Figure 10-3). Encourage new hillside developments to form flood control assessment districts to accommodate runoff and minimize downstream flooding, if determined necessary.	
			10-P-22	Ensure that pad elevations on newly constructed habitable buildings are one foot above the 100-year floodplain, as determined by FEMA.	
			10-P-24	Allow the construction of detention basins as mitigation in new developments. Ensure that detention basins located in residential neighborhoods, schools, or child-care facilities are surrounded by a gated enclosure, or protected by other safety	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
				care facilities are surrounded by a gated enclosure, or protected by other safety measures.	
			10-P-25	Develop and adopt regulations to control development along open channels and creeks, consistent with the County's Subdivision Code, Title 9. Ensure adequate minimum setbacks to reduce potential damage from storm flooding and protect riparian habitat.	
			10-P-26	Reduce the risk of localized and downstream flooding and runoff through the use of high infiltration measures, including the maximization of permeable landscape.	
			10-P-30	Encourage residential development to install post-construction Best Management Practices (BMPs) to minimize runoff from the site to the storm drain system (for example, using permeable surfaces for parking lots, sidewalks, and bike paths, or using roof runoff as irrigation).	
4.13-b	New urban land uses may result in increased non-point-source pollutant levels in stormwater runoff and the regional drainage system.	*Potentially significant*	9-P-9	Establish creek protection areas along riparian corridors, extending a minimum of 50 feet laterally from the tops of streambanks. Setback buffers for habitat areas of identified special status species and wetlands may be expanded to 150 feet, as needed to preserve ecological resources. No development should occur within these buffer areas, except as part of greenway enhancement (for example, trails and bikeways).	*Less than significant*
			9-P-18	Continue working with the Regional Water Quality Control Board in the implementation of the National Pollutant Discharge Elimination System (NPDES), with specific requirements established in each NPDES permit.	
			9-P-19	Require new urban development to use Best Management Practices (BMPs) to minimize creek bank instability, runoff of construction sediment, and flooding.	
			9-P-21	Encourage rehabilitation and revegetation of riparian corridors and wetlands throughout the City to contribute to bioremediation and improved water quality.	
			9-P-23	Protect water quality by reducing non-point sources of pollution and the dumping of debris in and near waterways and storm drains. Continue use and implementation of the City's storm drain marking program in newly developed or redeveloped areas.	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
4.13-c	New urban development may increase the amount of stormwater runoff, increasing downstream flooding in Kirker and Lawlor Creeks.	*Potentially significant*	9-P-13	As part of development plans, require evaluation and implementation of appropriate measures for creek bank stabilization, as well as necessary Best Management Practices (BMPs) to reduce erosion and sedimentation. However, preserve natural creek channels and riparian habitat as best possible.	*Less than significant*
			9-P-14	Establish development standards for new construction adjacent to riparian zones to reduce sedimentation and flooding. Standards should include: • Requirements that low berms or other temporary structures such as protection fences be built between a construction site and riparian corridor to preclude sheet-flooding stormwater from entering the corridors during the construction period. • Requirements for installation of storm sewers before construction occurs to collect stormwater runoff during construction.	
			9-P-15	To prevent additional flood hazards in the Kirker Creek watershed, ensure that new development minimizes paved areas, retaining large blocks of undisturbed, naturally vegetated habitat to allow for water infiltration.	
			10-P-18	Evaluate storm drainage needs for each development project in the context of demand and capacity when the drainage area is fully developed. Ensure drainage improvements or other mitigation of the project's impacts on the storm drainage system appropriate to the project's share of the cumulative effect.	
			10-P-21	Encourage the formation of flood control assessment districts for those areas within the 100- and 500-year flood plains (as designated in Figure 10-3). Encourage new hillside developments to form flood control assessment districts to accommodate runoff and minimize downstream flooding, if determined necessary.	
			10-P-22	Ensure that pad elevations on newly constructed habitable buildings are one foot above the 100-year floodplain, as determined by FEMA.	
			10-P-23	All new development (residential, commercial, or industrial) should contribute to the construction of drainage improvements in the Kirker Creek and other watersheds in the Planning Area.	
			10-P-25	Develop and adopt regulations to control development along open channels and creeks, consistent with the County's Subdivision Code, Title 9. Ensure adequate minimum setbacks to reduce potential damage from storm flooding and protect riparian habitat.	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
			10-P-26	Reduce the risk of localized and downstream flooding and runoff through the use of high infiltration measures, including the maximization of permeable landscape.	
4.13-d	New development projects may induce construction-related erosion, sedimentation, and accumulation of debris.	*Potentially significant*	9-P-13	As part of development plans, require evaluation and implementation of appropriate measures for creek bank stabilization, as well as necessary Best Management Practices (BMPs) to reduce erosion and sedimentation. However, preserve natural creek channels and riparian habitat as best possible.	*Less than significant*
			9-P-14	Establish development standards for new construction adjacent to riparian zones to reduce sedimentation and flooding. Standards should include: • Requirements that low berms or other temporary structures such as protection fences be built between a construction site and riparian corridor to preclude sheet-flooding stormwater from entering the corridors during the construction period. • Requirements for installation of storm sewers before construction occurs to collect stormwater runoff during construction.	
			9-P-19	Require new urban development to use Best Management Practices (BMPs) to minimize creek bank instability, runoff of construction sediment, and flooding.	
			9-P-20	Reduce sedimentation and erosion of waterways by minimizing site disturbance and vegetation removal along creek corridors.	
			10-P-8	During development review, ensure that new development on unstable slopes (as designated in Figure 10-1) is designed to avoid potential soil creep and debris flow hazards. Avoid concentrating runoff within swales and gullies, particularly where cut-and-fill has occurred.	
			10-P-27	Adopt practices for development and construction on sites where the erosion potential is moderate to severe.	
			10-P-29	Ensure that all development projects build on-site retention basins during initial site preparation to store run-off water generated by construction activities.	
4.14	***Noise***				
4.14-a	New development may increase traffic volumes along existing roadways and introduce traffic along new roadways, thereby exposing residents to roadside	*Potentially significant*	12-P-2	Work with Caltrans to provide sound walls designed to reduce noise by 10 dB in residential areas along State Route 4.	Significant & unavoidable
			12-P-3	Support implementation of State legislation that requires reduction of noise from motorcycles, automobiles, trucks, and aircraft.	

Table 1.2-1
Summary of Impacts and Mitigation, Pittsburg General Plan Draft EIR

	Impact	*Significance*	*Mitigation (General Plan Policy)*		*Significance after mitigation*
	exposing residents to roadside noise levels in excess of 60 dB Ldn.		12-P-4	Require noise attenuation programs for new development exposed to noise above normally acceptable levels. Encourage noise attenuation programs that avoid visible sound walls.	
			12-P-6	Ensure that new noise-sensitive uses, including schools, hospitals, churches, and homes, in areas near roadways identified as impacting sensitive receptors by producing noise levels greater than 65 dB CNEL (Figure 12-1), incorporate mitigation measures to ensure that interior noise levels do not exceed 45 dB CNEL.	
			12-P-7	Require the control of noise at the source through site design, building design, landscaping, hours of operation, and other techniques, for new development deemed to be noise generators.	
4.14-b	Land use distribution may expose homes and other noise-sensitive uses to high noise levels.	*Potentially significant*	12-P-5	Require that applicants for new noise-sensitive development, such as schools, residences, and hospitals, in areas subject to noise generators producing noise levels greater than 65 dB CNEL obtain the services of a professional acoustical engineer to provide a technical analysis and design of mitigation measures.	*Less than significant*
			12-P-6	Ensure that new noise-sensitive uses, including schools, hospitals, churches, and homes, in areas near roadways identified as impacting sensitive receptors by producing noise levels greater than 65 dB CNEL (Figure 12-1), incorporate mitigation measures to ensure that interior noise levels do not exceed 45 dB CNEL.	
			12-P-7	Require the control of noise at the source through site design, building design, landscaping, hours of operation, and other techniques, for new development deemed to be noise generators.	
			12-P-8	Develop noise attenuation programs for mitigation of noise adjacent to existing residential areas, including such measures as wider setbacks, intense landscaping, double-pane windows, and building orientation muffling the noise source.	
4.14-c	Existing noise-sensitive uses may be exposed to construction-related noise.	*Potentially significant*	12-P-9	Limit generation of loud noises on construction sites adjacent to existing development to normal business hours between 8am and 5pm.	*Less than significant*
4.15	***Cable, Telephone & Energy***				
4.15-a	Intensification and expansion of land uses in the City may result in new energy requirements.	*Potentially significant*	2-P-18	Revise the City's Subdivision Ordinance to include provisions for solar access and other energy-saving devices. Revise the City's Zoning Ordinance to require undergrounding of utility service/transformer boxes in new residential subdivisions.	*Less than significant*

1.3 ALTERNATIVES

Five land use and transportation alternatives were considered during the General Plan process:

1 *No Project Alternative.* Continued growth under the approved 1988 General Plan.

2 *County Urban Limit Line (1996) Alternative.* The Urban Limit Line, designated in the 1996 Contra Costa County General Plan, is used as the edge of development in this alternative. All land outside the line is retained as open space. However in mid 2000, Contra Costa County proposed amendments to the Urban Limit Line, which exclude several hundred acres in the southern hills. These new amendments were not taken into consideration in the development of this alternative.

3 *Moderate Hillside Growth Alternative.* Growth is accommodated in a combination of infill sites and on selected hillside locations with the least topographic constraints and visibility from the flatlands.

4 *Infill/Maximum Hillside Preservation Alternative.* The edge of existing and approved urban development is used as the limit of growth, resulting in maximum preservation of hillsides. However, to accommodate growth, infill sites have higher development intensities.

5 *Proposed General Plan.* The City's preferred General Plan land use distribution is a combination of infill development and limited hillside growth. With a focus on economic development, the Plan includes construction of regional commercial centers, mixed-use transit-oriented development, commercial revitalization of the historic Downtown, and redevelopment of industrial uses.

The alternatives provide a range of options for growth and conservation, and would have varying amounts of development capacity.

2 Introduction

An Environmental Impact Report (EIR) is a document that informs decision-makers and the general public of the significant environmental impacts of a project. The California Environmental Quality Act (CEQA) requires that the EIR be prepared by the agency with primary responsibility over the approval of a project (the lead agency).

This Draft Environmental Impact Report (EIR) evaluates the probable effects of policies in the Pittsburg General Plan. It also identifies mitigation measures to minimize significant impacts and evaluates reasonable alternatives to the proposed project. An environmentally superior alternative is identified as part of the process. A required "no-project" alternative discusses the result of not implementing the project or reasonable alternatives. Comments generated from public review of this document will be used to revise the Draft EIR and to prepare the Final EIR.

2.1 PURPOSE OF EIR

The Pittsburg General Plan consists of policies and proposals that guide the future growth and conservation of the City. The Draft EIR evaluates the potential environmental impacts of adoption of the proposed General Plan. Moreover, the Draft EIR is intended to assist the City of Pittsburg Planning Commission and the City Council in reviewing and acting on the General Plan. The Draft EIR and Final EIR (which will include responses to public comments, following the 45-day comment period) will be certified prior to adoption of the General Plan.

The document will also serve as a source of information in the preparation of initial studies for subsequent planning and development proposals, including subsequent environmental review of specific plans; for infrastructure provision and individual development proposals; and for public facilities to serve new development. Moreover, the Draft EIR will be useful in the preparation of revisions to the City's Zoning Ordinance, Capital Improvement Program, and other implementation tools of the General Plan.

Information contained in this EIR is also intended to assist the Contra Costa County Local Agency Formation Commission (LAFCO) in making decisions about changes to the City limits and the Sphere of Influence (SOI) in the future.

The General Plan and EIR have been prepared concurrently; policies in the Plan take into account the EIR's discussion of impacts and mitigation measures, so that the Plan effectively becomes self-mitigating.

2.2 GENERAL PLAN PROCESS

As part of the General Plan preparation, several technical studies were conducted to document environmental conditions, and analyze prospects for economic development, community character and growth, and development alternatives. The first major step in the process to update the Pittsburg General Plan was the preparation of the *Pittsburg General Plan: Existing Conditions and Planning Issues* (June 1998). It provides baseline information on existing conditions in the General Plan Planning Area, and discusses preliminary planning issues for the General Plan stemming from the analysis of existing information, including documentation of environmental conditions, analysis of prospects for economic development, and evaluation and documentation of community character and growth.

The *Pittsburg General Plan: Sketch Plans* (October 1998) was then produced, based on the opportunities and constraints information gathered for the *Existing Conditions and Planning Issues* Report. These *Sketch Plans* provided several alternative land use patterns for buildout in year 2020. Potential infill and redevelopment sites, as well as vacant land south of existing City limits, were considered areas of opportunity. Whereas, areas subject to geologic or storm flooding hazards were considered constraints to development. The preferred land use distribution is included within the Plan as the General Plan Land Use Diagram.

Policy memoranda, sketch plans and working papers were discussed and debated in meetings and in workshops within Pittsburg. The City Council and Planning Commission were involved at key decision-making points throughout the process. Newsletters and community meetings were part of an extensive outreach program to involve the public in the update of the General Plan.

2.3 APPROACH

This EIR evaluates the environmental impacts of the General Plan. Because of the programmatic nature of the General Plan, this EIR has been prepared as a Program EIR. As described in Section 15168(a)(3) of the CEQA Guidelines, a Program EIR "may be prepared on a series of actions that can be characterized as one large project and are related . . . in connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program."

As a Program EIR, this document focuses on the overall effects of the General Plan in the Planning Area; the analysis does not examine the effects of site-specific projects that may occur within the overall umbrella of this program in the future. The nature of general plans is such that many proposed policies are intended to be general, with details to be worked out during implementation. Thus, many of the impacts and mitigation measures can only be described in general or qualitative terms.

In order to place many of the proposed General Plan policies into effect, the City would adopt or approve specific actions—such as zoning regulations, specific plans, or capital improvement programs—that would be consistent with the policies and implementation measures of the General Plan. This Program EIR will not obviate the need for environmental review of specific plans and individual projects subsequent to the adoption of the General Plan. As specific plans and individual project plans and designs are prepared pursuant to the updated General Plan, project-specific environmental review with a finer level of detail will need to be conducted.

2.4 ASSUMPTIONS

The Pittsburg General Plan EIR is based on key assumptions, as described below:

1. This document is a Program EIR, and evaluates environmental impacts resulting from implementation and buildout of the General Plan. While the EIR identifies potentially significant impacts with full General Plan buildout, it does not preclude and, indeed, assumes that individual development project proposals submitted to the City of Pittsburg will necessitate independent environmental assessments in accordance with CEQA requirements. The EIR is intended, however, to be used for citywide and cumulative impact analysis of subsequent project proposals that are consistent with the General Plan.
2. The EIR assumes that all existing vacant land will be converted at General Plan buildout to the land uses identified on the General Plan Land Use Diagram. It is understood that development that occurs in accordance with the proposed General Plan will be incremental and timed in response to market conditions. However, interim "phases"—or development scenarios—are not evaluated herein, as they are not a part of the General Plan and would be considered speculative. Full implementation of the General Plan to a buildout level—defined as the mid- to high-range of densities permitted within the General Plan land use designations—is considered a "worst case" scenario, suitable for EIR evaluation.
3. Pittsburg's Sphere of Influence (SOI) currently (year 2000) includes property outside the City's municipal boundaries. Much of this land is designated for non-urban uses, and is likely to remain outside of City limits during the length of the proposed General Plan. In addition, the proposed General Plan outlines the City's position that Bay Point will remain outside of City limits. However, the General Plan does designate some unincorporated land for urban uses; where City services are needed, annexation of this land to the City would be a condition of development approval. The environmental effects of annexation are the same as for full General Plan implementation. It is recognized that annexation of property to the City of Pittsburg would require LAFCO review and approval.
4. Cumulative impacts are defined by Section 15355 of the State CEQA Guidelines as "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts". The Guidelines allow the use of projections from adopted planning documents (e.g. general plans) to define an area-wide set of conditions for use in the analysis. The Pittsburg General Plan, by its very nature, is a planning document and, therefore, the Pittsburg Planning Area will generally be used as the area for cumulative impact analysis. Environmental impacts would occur in areas where urban-intensity uses are planned (the remainder of the Planning Area—such as much of the southern hills—are planned for open space oriented uses).

   Cumulative and project-based impacts would be the same for the following environmental issues: land use; community character; parks, open space, and agricultural resources; public schools, fire safety and emergency medical; water, wastewater, and solid waste; biological resources; historical and cultural resources; hazardous materials; geology and seismicity; hydrology, flooding, and water quality; noise; and telephone, cable, and energy. However, cumulative impacts for air quality and transportation would extend beyond the SOI boundaries and are, therefore, separately evaluated in Chapter 5 (Section 5.4: Cumulative Impacts) of this EIR. The cumulative analysis for the proposed General Plan can be used for determination of cumulative impacts of subsequent project proposals.

5. Project proposals located within the Planning Area, but outside the City's municipal boundaries, are within the land use authority of Contra Costa County. Without an annexation proposal to Pittsburg, the determination for approval (or disapproval) of these projects would be made by Contra Costa County. Any project proposal that includes an annexation request to the City of Pittsburg would be processed for annexation through the LAFCO prior to, or concurrent with Pittsburg action on the project. However, any City action would become effective only upon completion of annexation.
6. Existing settings information is based on *Pittsburg General Plan: Existing Conditions and Planning Issues* (June 1998). It is acknowledged that, given the volume of data and topics addressed in this report, more recent data may be available for some topics. However, this report provides comprehensive information and is sufficiently current and complete. Therefore, it is considered a reasonable and reliable resource for use as a measure of baseline data in this EIR.

2.5 ISSUES ADDRESSED IN EIR

The issues to be evaluated in the EIR were determined through a series of initial steps. A Notice of Preparation (NOP) was circulated for the Draft EIR in June 1999, and the City received comments on the NOP during a 30-day review period. These comments helped identify the major planning issues and concerns in the General Plan, and helped establish the framework and focus of the environmental analysis.

The first step toward completion of the Draft EIR was an initial analysis of the environmental setting. This analysis compiled specific information on the current conditions and characteristics of the city, as well as major issues that the City faces. Topics of analysis included land use; growth management; transportation; economic development; Downtown; historical and cultural resources; parks, recreation, and open space; schools; public facilities and services; environmental resources and conservation; noise; and air quality.

Information about the environmental settings is used to provide background about relevant issues, determine thresholds of significance, and evaluate potential impacts. From the initial analysis of environmental setting, as well as the NOP comments and public meetings, it was determined that the General Plan could result in *potential* significant impacts in the following areas:

- Land Use;
- Community Character;
- Transportation;
- Air Quality;
- Parks, Open Space, and Agricultural Resources;
- Public Schools;
- Fire Safety and Emergency;
- Water, Wastewater, and Solid Waste;
- Biological Resources;
- Historical and Cultural Resources;
- Hazardous Materials;
- Geology and Seismicity;
- Drainage, Flooding and Water Quality;
- Noise; and
- Telephone, Cable and Energy.

2.6 DOCUMENTS INCORPORATED BY REFERENCE

Section 15150 of the State CEQA Guidelines permits documents of lengthy technical detail to be incorporated by reference in an EIR. Specifically, Section 15150 states that an EIR may "... incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public." Incorporated documents could be briefly summarized in the EIR and be made available to the public for inspection or reference. The Pittsburg General Plan EIR incorporates by reference the three documents noted below, which are available at the City of Pittsburg Department of Economic and Community Development, Planning Division, 65 Civic Avenue, Pittsburg, California, 94083.

- *Pittsburg General Plan: Existing Conditions and Planning Issues* (June 1998). – This document, also referred to as the *Existing Conditions Report*, provides a comprehensive inventory of physical resources in the Pittsburg (as of the date of publication). The *Existing Conditions Report* was used as the primary database for development of the proposed Pittsburg General Plan. Summaries of the appropriate topics in the *Existing Conditions Report* are provided in the environmental setting sections for each of the environmental issues under review in Chapter 4 of this EIR.
- *Pittsburg General Plan: Sketch Plans* (October 1998). This document includes several land use and transportation alternatives that were evaluated and presented to the public, and elected and appointed officials.
- *City of Pittsburg General Plan 2020: Public Review Draft* (January 2001). This document, also referred to as the General Plan, is the proposed project under consideration in this EIR.

2.7 ORGANIZATION

The remainder of the Draft EIR is organized into the following chapters:

- *Chapter 3: Project Description.* This chapter includes a detailed description of the City of Pittsburg General Plan. The objectives of the General Plan and characteristics of the Proposed General Plan are included.
- *Chapter 4: Environmental Setting, Impact Analysis, and Mitigation.* This chapter analyzes the environmental impacts of the proposed City of Pittsburg General Plan. Impacts are organized by major topic. Each topic area includes a summary of the environmental setting, thresholds of significance, impacts, and mitigation measures. Policies in the General Plan that would avoid or reduce the impacts are also discussed.
- *Chapter 5: Impact Overview.* Chapter 5 provides a summary of significant environmental impacts, including unavoidable, irreversible, growth-inducing, and cumulative impacts.
- *Chapter 6: Analysis of Alternatives.* This chapter compares the impacts of the General Plan under the *Proposed General Plan* and four alternatives: *No Project Alternative*, *County Urban Limit Line Alternative*, *Moderate Hillside Growth Alternative*, and *Infill/Maximization Hillside Preservation Alternative.* The Proposed General Plan is identified as an environmentally superior alternative.

3 Project Description

3.1 REGIONAL LOCATION AND PLANNING BOUNDARIES

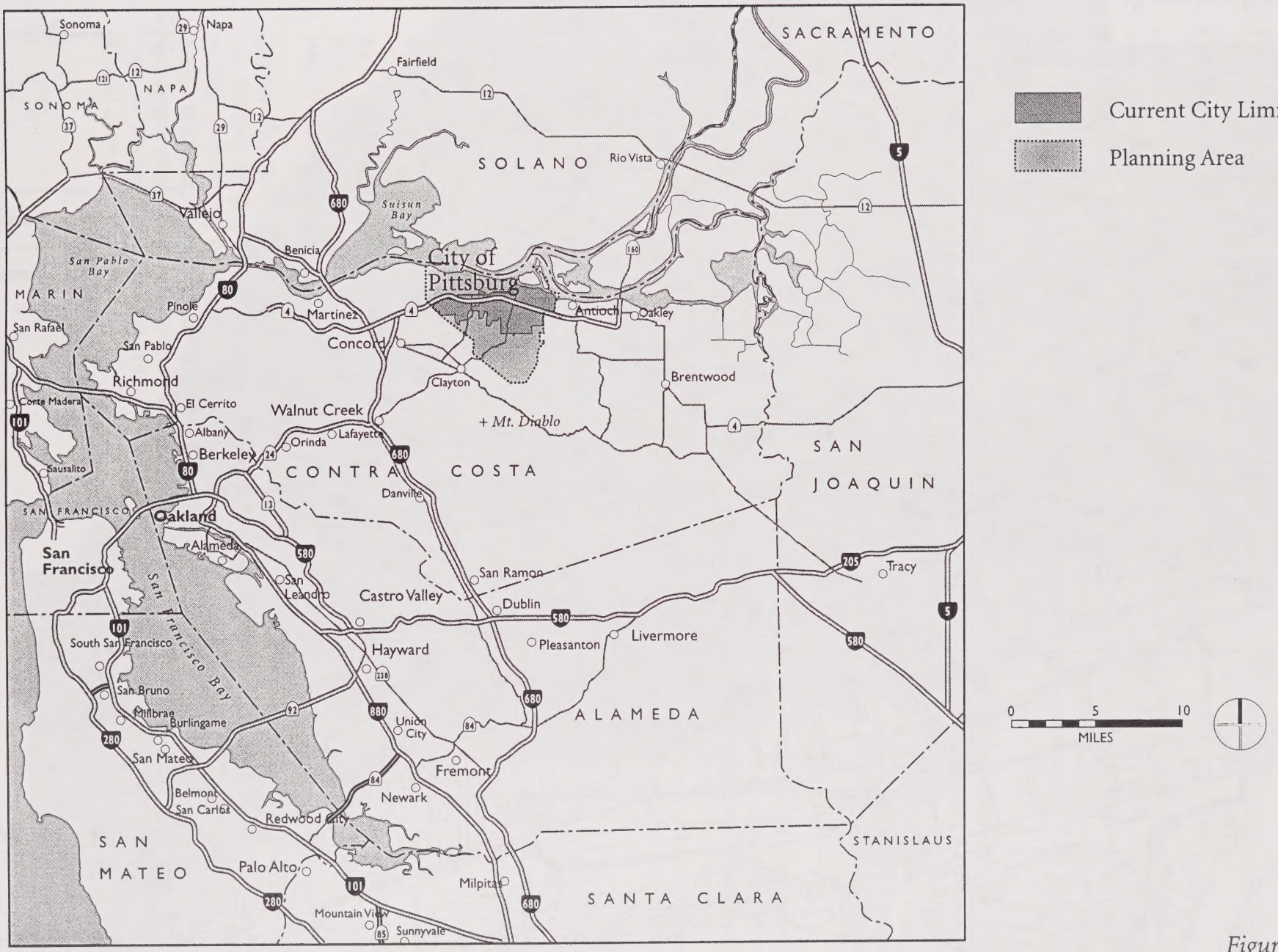
REGIONAL LOCATION

Pittsburg is located along the Sacramento River in eastern Contra Costa County. The northern portion of the City is relatively flat, increasing in elevation as it expands into the southern hills. The hills form the northern tip of the Diablo Range, which extends from Contra Costa County to Santa Clara County. Major transportation corridors include State Route 4, the Burlington Northern & Santa Fe Railroad, and the Southern Pacific Railroad. Figure 3.1-1 shows the City's regional location.

PLANNING BOUNDARIES

Pittsburg's Planning Area includes 41.1 square miles of land, within which lie both the Sphere of Influence (SOI) and the City limits. The inclusion of land outside City limits does not necessarily mean that the City is contemplating annexation. Pittsburg's SOI extends over 18.2 square miles and includes the unincorporated community of Bay Point, northwest of the City. City limits in 2000 spanned 15.6 square miles. The Planning Area boundaries coincide with those of Antioch and Clayton, and with the Concord Naval Weapons Station, which lies within Concord city limits.

Several geographic features distinguish the Planning Area. The Sacramento River/Suisun Bay forms the northern boundary; Browns Island, located across New York Slough, is visible from the waterfront. Steep hills—reaching an elevation of almost 1,900 feet—provide a distinctive backdrop to the south, and define the limits of urban development. The Black Diamond Mines Regional Preserve marks the southeastern limits of the Planning Area. Figure 3.1-2 shows the City's planning boundaries in physical relief.



Source: City of Pittsburg, Dyett & Bhatia

Figure 3.1-1

Regional Location

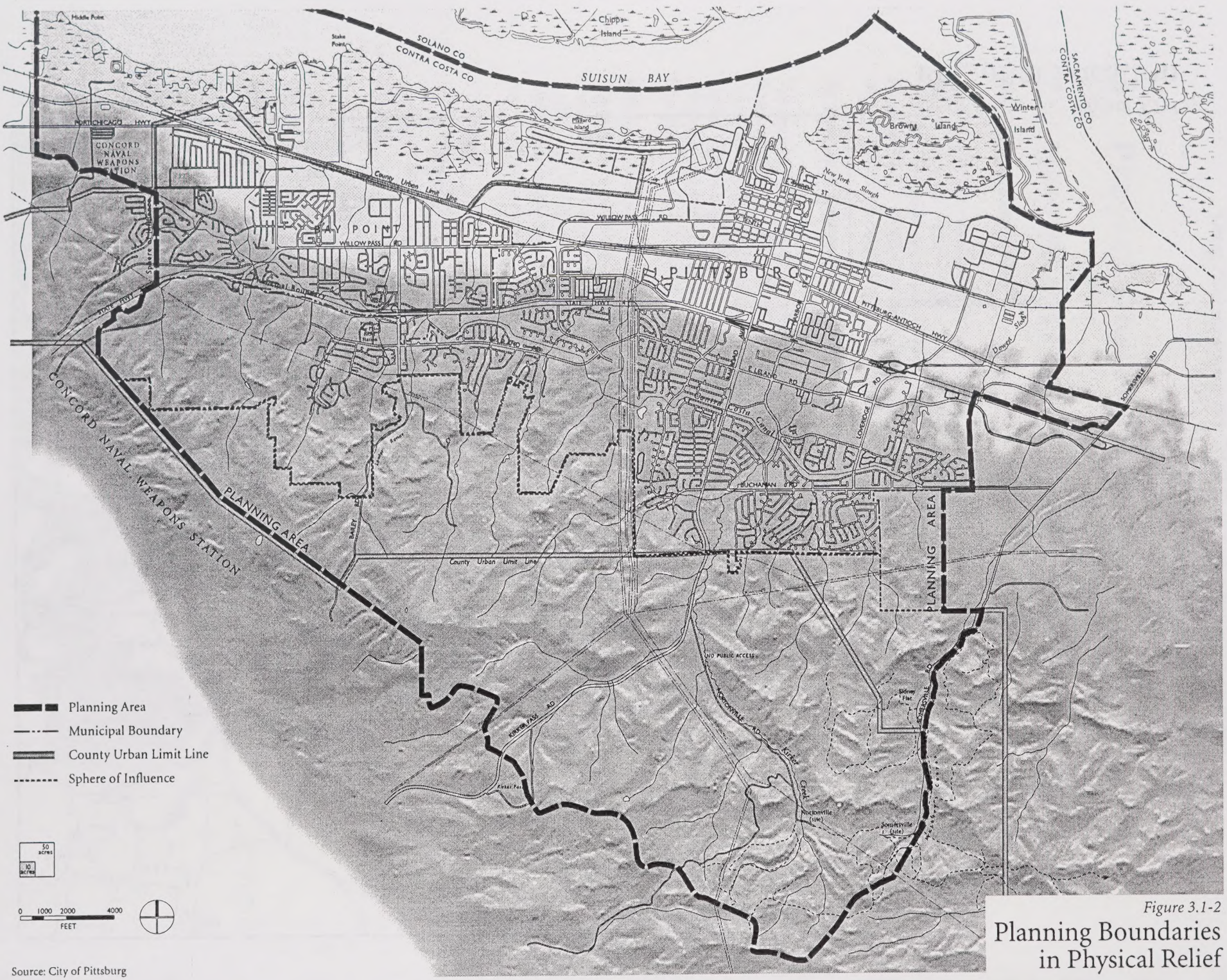


Figure 3.1-2

Planning Boundaries in Physical Relief

Source: City of Pittsburg

3.2 BACKGROUND AND CONTEXT

EVOLUTION OF PITTSBURG

Pittsburg began as a 10,000-acre land grant from the government of Mexico in 1839 along the Sacramento River Delta coastline, and grew into a settlement. Originally named New York of the Pacific and then New York Landing, when it was a way station during the Gold Rush days, the town's reputation as an industrial area was established after 1855 when coal was discovered in the southern hills. However, the prime industrial base of the City was solidified in 1911 with the opening of the first steel mill, and the final name change to Pittsburg.

During World War II, Camp Stoneman was built in Pittsburg. Forty-five thousand servicemen were stationed at the Camp, which was a major point of embarkation for the Pacific Theater. At the end of the War, the level of activity declined in Pittsburg as it did in other wartime boomtowns, signaling an end to much of the prosperity the City had known. There was a slight resurgence of activity at Camp Stoneman during the Korean Conflict, but after that ended in 1954, the camp was placed on inactive status and many local businesses closed or relocated, often to neighboring communities where commercial development was occurring.

Pittsburg experienced rapid population growth during the 1970s and the 1980s, evolving into a bedroom community for employment centers in western and central Contra Costa County. Population in the City's SOI grew 43 percent between 1985 and 1995, about 70 percent faster than Contra Costa County's growth rate. In the last five years, as development has extended to City limits, Pittsburg's pace of growth has slowed. Continued dramatic growth of other eastern and central County cities, such as Brentwood, Antioch, and Clayton, has contributed to this reduction in Pittsburg's population growth.

Many other changes have also occurred in the last decade. Extension of Bay Area Rapid Transit (BART) service to western Pittsburg and Bay Point has given residents a new transportation option. Much recent growth has been in the southern hills, which has altered the City visually and physically. As topographic limitations are reached, the need for infill development has come increasingly into focus.

EXISTING POPULATION

As of 2000, the City of Pittsburg had an estimated population of 53,700, making it the fifth most populous City in Contra Costa County (ABAG *Projections 2000*). Population in the City's SOI, which includes the unincorporated community of Bay Point, was estimated at 71,400.

Historically, the City's population has grown larger every decade. The major exception was the decade between 1930 and 1940, when population declined slightly (see 3.2-1). The City experienced a growth spurt during World War II and the period that followed, with a doubling of population between 1940 and 1960. Then, like the rest of the County, the 1960s marked a period of slow growth. The largest population increase came between 1970 and 1980, when the City experienced an average increase of over six percent per year. This period was also one of rapid growth in outlying Contra Costa County communities.

Table 3.2-1
Population Growth, 1930-2000: City of Pittsburg

Year	Population	Average Annual Growth Rate
1930	9,610	n/a
1940	9,520	-0.1%
1950	12,760	3.4%
1960	19,060	4.9%
1970	20,650	0.8%
1980	33,470	6.2%
1990	47,560	4.2%
2000	53,700	1.3%

Source: 1930-90 US Census; ABAG Projections 2000.

Table 3.2-2 compares population growth in the City, the SOI, and the County between 1990 and 2000. Growth in the Pittsburg SOI outpaced both the City's and the County's rate of growth in the 1980s. According to ABAG estimates, growth in unincorporated areas has slowed down in recent years. While the Pittsburg Planning Area grew almost 70 percent faster than the County in the 1980s, growth in recent years has lagged behind the County. Virtually all of the unincorporated population in the SOI is in the unincorporated community of Bay Point (formerly West Pittsburg), which totaled approximately 17,700 residents in 2000.

Table 3.2-2
Population Growth, 1980-1995: City of Pittsburg, SOI, and Contra Costa County

	1980	1990	Annual Growth 1980-1990	2000	Annual Growth 1990-2000
City of Pittsburg	33,470	47,560	3.6%	53,700	1.3%
Pittsburg Sphere of Influence (SOI)	43,840	65,230	4.1%	71,400	0.9%
Contra Costa County	656,380	803,730	2.0%	941,900	1.7%

Source: 1980 and 1990 US Census, ABAG Projections 2000.

POPULATION PROJECTIONS

General Plan Buildout

Buildout of the General Plan, at the assumed densities shown in Table 3.2-3, will result in approximately 29,000 housing units located within the City limits. An estimated population of 83,000 will reside within the City limits, while approximately 21,000 people will live within Bay Point by 2020; resulting in a total Planning Area population of 104,000[1]. General Plan buildout projections anticipate population growth slightly higher than those of the Association of Bay Area Governments (ABAG *Projections 2000*: 97,000 estimated 2020 population).

[1] City of Pittsburg buildout projections based on land use development assumptions (see Table 3.2-3), while Bay Point buildout projections based on ABAG *Projections 2000*.

Table3.2-3
Population at General Plan Buildout, Pittsburg Planning Area

	Assumed Density	Total Dwelling Units	Assumed Persons per Dwelling Unit	Total Population
City of Pittsburg		**29,000**		**83,000**
Hillside Low Density	3 du/ac	2,140	3.2 p/du	6,490
Low Density	6 du/ac	14,470	3.2 p/du	44,000
Medium Density	12 du/ac	4,080	2.8 p/du	10,850
High Density	20 du/ac	5,790	2.8 p/du	15,410
Downtown Low Density	8 du/ac	450	2.8 p/du	1,190
Downtown Medium Density	16 du/ac	1,500	2.6 p/du	3,720
Downtown High Density	24 du/ac	580	2.6 p/du	1,430
Bay Point				**21,000**
Total Pittsburg Planning Area				**104,000**

Source: Dyett & Bhatia, 2000; LUIS 99 Contra Costa County TAZ Projections (Bay Point).

ABAG Projections 2000

ABAG projects that population in the City's SOI will reach 97,000 in the year 2020, representing a 36 percent increase over the estimated 2000 population of 71,400. These projections are a downward revision in anticipated population growth in the Pittsburg area compared to earlier ABAG projections, reflecting a continuation of the recent growth surge experienced by surrounding eastern County communities. These revised projections still represent a faster growth rate for the Pittsburg SOI than for the County, whose population is expected to increase by 24 percent between 2000 and 2020, to 1,169,000 residents. However, East County—which includes Pittsburg, Antioch, Brentwood and rural County lands—is expected to grow more than twice as fast as the County as a whole, with a population increase of 49 percent, or about 103,000 residents.

Because of the nature of population forecasts, they tend to more accurate for larger regions (such as the County), than for smaller geographic areas. Thus, while these projections provide a good comparative basis for plan-making, change in local policies could affect the distribution of the projected regional population increase.

HOUSEHOLDS

According to ABAG Projections 2000, Pittsburg's SOI had 21,700 households in 1990, with an average household size of 2.99, while the County's average household size stood at 2.64. ABAG also estimated that Pittsburg's average household size reached 3.17 in 2000. Pittsburg's larger household size is largely a reflection of family households comprising a greater proportion of the total. 1990 US Census data reported that 77 percent of households in the City consisted of family households, compared with 71 percent in the County.[2] Over one-half of these families (57 percent) had children, many of whom were attracted to Pittsburg because of its affordable housing prices.

[2] According to the US Census, a family household consists of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption.

ABAG projects that household size in Pittsburg SOI will continue to increase into the future, peaking at 3.22 in 2005 and dropping back down to 3.07 by 2020. In contrast, Contra Costa County's household size is expected to rise slowly and steadily to 2.75 by 2020. While the number of households in the City grew by a dramatic 43 percent between 1980 and 1900, and then dropped to a low 3 percent between 1990 and 2000, growth is estimated to rise steadily by approximately 20 percent through the next two decades. These trends are shown in Table 3.2-4.

Table 3.2-4
Historic and Projected Household Growth: Pittsburg SOI

Year	Household Population	Number of Households	Percent Increase	Persons per Household
1980	43,800	15,200		2.88
1990	64,700	21,700	43%	2.99
2000	70,800	22,300	3%	3.17
2010	84,900	26,800	20%	3.17
2020	96,400	31,400	17%	3.07

Source: ABAG Projections '96 and Projections 2000

AGE AND EDUCATION

Consistent with Pittsburg's large average family size is a population that is generally younger than the County's. In 1990, Pittsburg had a higher proportion of residents under 34 years of age. The median age in the City was 29 years. The prevalence of young people in Pittsburg highlights the importance of providing adequate schools, parks and recreation facilities, as well as programs that support families with children.

Pittsburg's population has generally lower education attainment levels than the County population. In 1990, only 14 percent of City residents had completed baccalaureate or graduate education, compared to 32 percent of County residents.

RACE AND ETHNICITY

Pittsburg is a diverse community, with a minority population of about 40 percent. Most notably, African Americans accounted for 18 percent, and those of Hispanic origin accounted for 24 percent of the population in 1990.[3] Table 3.2-5 presents the City's ethnic breakdown.

[3] The US Census makes a specific distinction between "race" and "origin". Racial categories used in the Census are: White; Black (or African American, as used in this Report); Asian or Pacific Islander; and American Indian, Eskimo, or Aleut. "Origin" is viewed as the ancestry, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the US. Persons of Hispanic Origin may be of any race; thus, the Hispanic Origin is listed separately from racial categories.

Table 3.2-5
Race and Ethnicity, 1990: City of Pittsburg

	Number	*Percent of Total*
White	27,874	58%
African American	8,363	18%
Asian or Pacific Islander	5,792	12%
American Indian, Eskimo, or Aleut	366	1%
Other	5,169	11%
Total	**47,564**	**100%**
Hispanic Origin	11,288	24%

Source: 1990 US Census

The City's ethnic breakdown differs markedly from East County and Contra Costa County as a whole. Minorities contribute to a greater proportion of the population in Pittsburg than in either East County or Contra Costa County, which are similar in their ethnic composition, with Whites encompassing approximately 75 percent of the population. Proportionately, twice as many African Americans live in the City than in Contra Costa County (9 percent). Similarly, there are a greater proportion of people of Hispanic origin in the City than in the County (11 percent).

INCOME

Despite its larger household size, Pittsburg has a relatively low median household income. The 1990 median household income in Pittsburg was $38,532, substantially lower than the County's median of $45,087, and somewhat lower than Bay Area's median household income of $41,459 (see Table 3.2-6). While the largest proportion of Whites, Asians, and those of Hispanic origin earned incomes within the median income range ($25,000 to $50,000), African American and Native Americans fell below this range – approximately 42 percent of households in each of these two groups earned less than $25,000 in 1990.

Table 3.2-6
Median Household Income, 1990: City of Pittsburg, Contra Costa County, and SF Bay Area

	Median Household Incom
City of Pittsburg	$38,532
Contra Costa County	$45,087
San Francisco Bay Area	$41,459

Source: 1990 US Census

EMPLOYMENT

The employment characteristics of Pittsburg residents can be broken down by *industry* and by *occupation*. Industry refers to the field of work within which a person is employed (for example construction or health services). Occupation refers to the specific role a person plays within a particular field (for example management or administrative support). In 1990, the proportion of employment by industry was similar between the City and the County, with the largest proportion of workers engaged in trade, manufacturing, services, and finance, insurance, and real estate.

The occupational structure of Pittsburg residents, however, differs markedly from those of County residents. Compared to County residents, a higher proportion of City residents work in administrative support and production occupations, and fewer are employed in managerial, professional, and sales positions. The slightly higher proportion of City residents employed in industrial occupations can be attributed to the prevalence of chemical, steel, and petroleum companies in Pittsburg—such as Dow Chemical, USS-Posco (steel manufacturing), and Praxair (industrial gas production)—which employ many City residents. Table 3.2-7 presents Pittsburg's employment breakdown in 1990. The City's employed residents are increasingly working in the services sector, commensurate with both a changing local economy and an increase in commuter population.

Table 3.2-7
Resident Employment, 1990: City of Pittsburg

Industry	*Percent*	*Occupation*	*Percen*
Agriculture/Mining	4%	Managerial	11
Construction	9%	Professional Specialty	9
Manufacturing		Technical and Related Support	4
Durable Goods	7%	Sales	9
Nondurable Goods	7%	Administrative Support	22
Transportation	6%	Service	
Communications and Utilities	4%	Protective	2
Trade		Other	11
Wholesale	5%	Farming, Forestry, Fishing	3
Retail	17%	Precision Production, Craft, Repair	13
Finance, Insurance, Real Estate	10%	Operators, Fabricators, Laborers	
Services		Machine Operators	5
Business and Repair	5%	Transportation and Moving	5
Personal	3%	Handlers and Laborers	5
Entertainment and Recreation	1%		
Professional Services			
Health	8%		
Educational	5%		
Other	5%		
Public Administration	5%		
Total	*100%*	*Total*	*100*

Source: 1990 US Census

3.3 OBJECTIVES OF GENERAL PLAN UPDATE

The Pittsburg General Plan addresses issues related to physical development, growth, and conservation of resources in the City's Planning Area. The General Plan:

- Outlines a vision of long-range physical and economic development, and hillside and resource conservation, that reflects the aspirations of the community;
- Provides strategies and specific implementing actions that will allow this vision to be accomplished;
- Establishes a basis for judging whether specific development proposals and public projects are in harmony with said vision;
- Allows City departments, other public agencies, and private developers to design projects that will enhance the character of the community, preserve and enhance critical environmental resources, and minimize hazards; and
- Provides the basis for establishing and setting priorities for detailed plans and implementing programs, such as the Zoning Ordinance, specific plans, and the Capital Improvement Program.

GENERAL PLAN REQUIREMENTS

State law requires each California city and county to prepare a general plan. A general plan is defined as "a comprehensive, long-term plan for the physical development of the county or city, and any land outside its boundaries which in the planning agency's judgment bears relation to its planning." State requirements call for general plans that "comprise an integrated, internally consistent and compatible statement of policies for the adopting agency."

A city's general plan has been described as its constitution for development – the framework within which decisions on how to grow, provide public services and facilities, and protect and enhance the environment must be made. California's tradition of allowing local authority over land use decisions means that the state's cities have considerable flexibility in preparing their general plans.

While they allow considerable flexibility, state planning laws do establish some requirements for the issues that general plans must address. The California Government Code establishes both the content of general plans and rules for their adoption and subsequent amendment. Together, state law and judicial decisions establish three overall guidelines for general plans.

- *The General Plan Must Be Comprehensive.* This requirement has two aspects. First, the general plan must be geographically comprehensive. That is, it must apply throughout the entire incorporated area and it should include other areas that the City determines are relevant to its planning. Second, the general plan must address the full range of issues that affects the City's physical development.
- *The General Plan Must Be Internally Consistent.* This requirement means that the General Plan must fully integrate its separate parts and relate them to each other without conflict. "Horizontal" consistency applies as much to figures and diagrams as to the general plan text. It also applies to data and analysis as well as policies. All adopted portions of the general plan,

whether required by state law or not, have equal legal weight. None may supersede another, so the General Plan must resolve conflicts among the provisions of each element.

- *The General Plan Must Be Long-range.* Because anticipated development will affect the City and the people who live or work there for years to come, state law requires every general plan to take a long-term perspective.

3.4 CHARACTERISTICS OF PROPOSED GENERAL PLAN

Responding to the objectives and issues raised during the community participation process, the General Plan is structured around several themes, which form the basis of goals and policies included in the various elements:

1 *Employment Growth.* While industrial activity in Pittsburg continues to be strong, the City's economy is in transition from manufacturing to services. Existing large industrial uses are far more efficient and less labor-intensive than in the past. Job-growth in the heavy industry sector may be limited due to more efficient production methods, strict environmental regulations, and public attitude opposing heavy industry. Retail trade and services are expected to be the fastest-growing employment sectors in the coming decades, and will have positive impacts on the City's fiscal base. Three value-oriented centers have already located along State Route 4, and the General Plan will allow for continued expansion of existing clusters.

   Office and service establishments in Pittsburg are generally small-scaled, and clustered with strip malls along Railroad Avenue and East Leland Road. Expansion of high-tech industries throughout Contra Costa County is increasing demand for larger-scale office and business center developments. The General Plan provides sites for business commercial development in a variety of locations – near the Pittsburg/Bay Point BART station, along State Route 4, adjacent to the proposed Railroad Avenue BART Station, and other infill and potential redevelopment sites.

2 *Downtown and Waterfront Revitalization.* Pittsburg's waterfront location has been central to its growth and development. Coal was transported from Black Diamond Mines along Railroad Avenue for shipping during the late 1800's; the juncture of Railroad Avenue and the Sacramento River Delta became the natural location for Pittsburg's Downtown.

   The General Plan builds on Downtown's many positive attributes and seeks to improve visual and physical connection to the water and access from surrounding neighborhoods, and a development pattern that lends itself to pedestrian scale and comfort. The General Plan delineates a new waterfront park and marine commercial uses along Third Street. It also seeks growth in Downtown's population base from about 4,100 in 1999 to over 7,800 at Plan buildout.

3 *Hillside/Ridgeline Preservation.* The range of hills flanking the City's southern boundary is one of Pittsburg's most distinguishing features. As large tracts of undeveloped land suitable for housing within the City have become scarce, the hillsides have come under increasing development pressure. A majority of new growth in the hillsides will result from development that is already entitled; the General Plan delineates minimal new growth in the hillsides. Based on sophisticated computer-based viewhshed analysis, the General Plan also delineates ridgeline protection areas, and includes other policies to ensure that development is in keeping with hillside character and constraints.

4 *Jobs/Housing Balance.* With a jobs/employed residents' ratio of 0.66, the Pittsburg SOI had a deficit of approximately 11,000 jobs in 2000. Large-scale projects, such as North Park Plaza, have augmented the City's commercial base and in the last five years, and the City has added jobs at a faster rate than population growth. The General Plan seeks a close balance between jobs and employed residents at buildout, thereby allowing all residents the opportunity to work within the City.

5 *Capitalizing on Regional Transportation Improvements.* The General Plan seeks to link employment growth to improvements in regional accessibility resulting from widening of State Route 4 and extension of BART. This will support transit, as well as minimize neighborhood impacts of commercial development.

6 *Enhanced Community Character.* The General Plan establishes specific urban design policies for major corridors, development in the hillsides, and for Downtown and residential neighborhoods. Connections between neighborhoods, transitions between urban and open space areas, City and neighborhood edges, community orientation of development, building massing, and streetscapes are all addressed. Policies are also included for viewshed and ridgeline protection.

7 *Increased linkages between different parts of the City.* The General Plan included many improvements that will both improve connections between different neighborhood and regional access. These include construction of West Leland Road to the western City limit, proposed San Marco Boulevard from the Willow Pass Road/State Route 4 interchange to Bailey Road, proposed Buchanan Bypass along southeast city limits, and a Range Road/State Route 4 interchange.

LAND USE FRAMEWORK

The land use framework of the General Plan is embodied in the General Plan Diagram (Figure 3.4-1), which is a graphic representation of the themes and policies in the Plan. The General Plan Diagram designates the proposed general location, distribution, and extent of land uses through buildout, which is expected by about 2020. As required by State law, land use classifications, shown as color/graphic patterns or letter designations on the Diagram, specify a range for housing density and building intensity for each type of designated land use. These density/intensity standards allow circulation and public facility needs to be determined; they also reflect the environmental carrying-capacity limitations established by other elements of the General Plan. A calculated distribution of land use acreages, according to the General Plan Diagram, is shown in Table 3.4-1. A diagram of the land use distribution within Pittsburg's Downtown is shown in Figure 3.4-2.

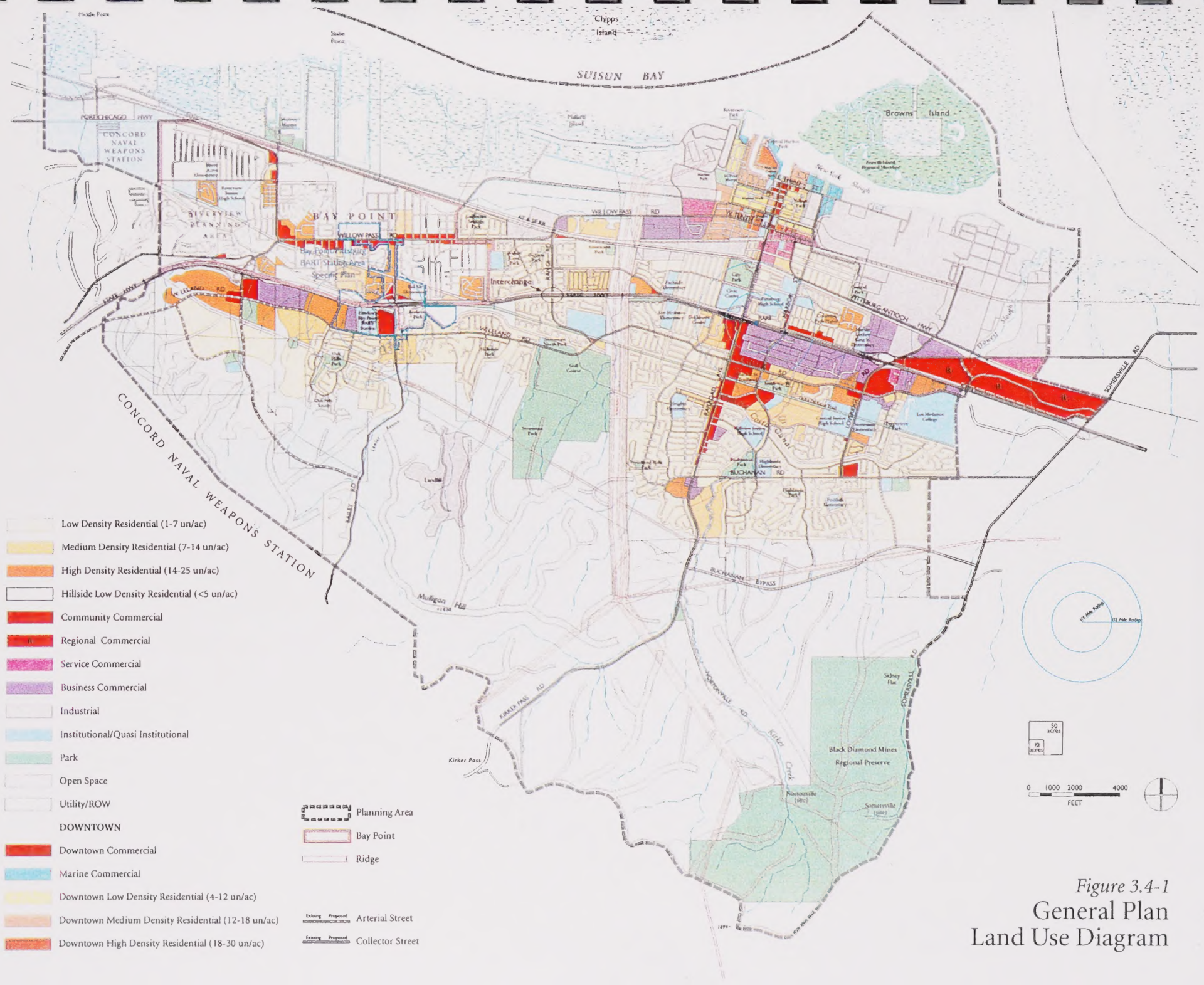


Figure 3.4-1
General Plan
Land Use Diagram

Table 3.4-1
General Plan Distribution, Pittsburg (not including Bay Point)

Land Use Category	*Total Acres*
Residential	
Hillside Low Density	712
Low Density	2,412
Medium Density	340
High Density	290
Downtown Low Density	56
Downtown Medium Density	94
Downtown High Density	24
Commercial	
Community Commercial	398
Business Commercial	390
Downtown Commercial	12
Marine Commercial	56
Service Commercial	91
Industrial	1,412
Parks	2,680
Open Space	9,112
Public / Institutional	468
Utility ROW	1,032
Grand Total	**19,580**

Source: Dyett & Bhatia, 2000.

DOWNTOWN

- Downtown Commercial
- Marine Commercial
- Downtown Low Density Residential (4-12 un/ac)
- Downtown Medium Density Residential (12-18 un/ac)
- Downtown High Density Residential (18-30 un/ac)
- Service Commercial
- Institutional/Quasi Institutional
- Park
- Parking

- Planning Subarea
- Existing Proposed — Arterial Street
- Existing Proposed — Collector Street

Figure 3.4-2

Downtown Land Uses

3.5 PLANS OF SURROUNDING JURISDICTIONS AND OTHER AGENCIES

Pittsburg shares its Planning Area boundaries with the cities of Concord, Antioch, and Clayton. Although Brentwood's boundaries are not contiguous with Pittsburg's, its rapid rate of growth may affect the City. A discussion of General Plan policies from each of these four cities in included below.

CONCORD

The City of Concord lies to the west and southwest of Pittsburg. Immediately adjacent to this boundary is the Concord Naval Weapons Station. State Route 4, Port Chicago Highway, Bailey Road, and Kirker Pass Road are the primary access routes connecting the two cities.

Concord's General Plan, adopted in 1994, focuses on the compatibility of commercial and residential development with adjacent uses. Policies stress alleviating potential adverse impacts that a project may have on its surroundings. Specific areas and sites are given particular attention. The plan provides for the addition of approximately 6,100 housing units and 4.0 million square feet of commercial/office space.

Because of its size and proximity to Pittsburg, plans for the Concord Naval Weapons Station will have the greatest impact on the City. Also, business park and regional commercial development in West Concord may affect the potential for commercial development in Pittsburg and increase the amount of traffic on State Route 4. Development policies for these and other areas include:

- *Concord Naval Weapons Station.* The possibility exists that a portion of the station may be offered to Concord for non-military uses (other than for public use) as a result of potential base closure. If so, a General Plan Amendment for the entire property will be prepared for consideration.
- *West Concord.* West Concord is the city's regional commercial center. Business park development focusing on research and development and additional regional commercial development are proposed for this area. Development on the north side of Concord Avenue, west of State Route 242, will need to comply with Airport Land Use Commission policies for the Buchanan Field Airport.
- *Central Concord.* Policies for Central Concord include maximizing retail, office, and/or residential opportunities at the Park 'N' Shop center and redeveloping the Terminal Shopping Center so that potential adverse impacts on the surrounding neighborhood are alleviated, while taking advantage of the center's proximity to downtown Concord and BART station.
- *Newhall Ranch Area Specific Plan.* The focus of the specific plan is the hillside at the southern edge of Concord city boundaries, south of Ygnacio Valley Road. Quarrying activity has affected much of the site, which is addressed in the Plan along with policies for new residential development.
- *Port Chicago Highway at Hickory (Commercial Site).* This is considered a "special site," needing development policies that respond to unique circumstances. Concerns for the development of this area include on- and off-site vehicular circulation and impacts on surrounding residential neighborhoods.

ANTIOCH

Sharing Pittsburg's eastern Planning Area boundary is the City of Antioch. The Antioch Planning Area is characterized by low-density urban uses with a large amount of vacant and grazing land. Housing is the primary land use, and is expected to continue as the dominant land use in the future. The typical residential density in Antioch is five units per net acre. Construction of an additional 18,000 single-family and 5,500 multifamily units is possible under the current General Plan's density requirements. At buildout, the city would have a total of about 42,000 housing units, 76 percent of which would be single-family. Residential uses reach the edge of much of the boundary that divides Pittsburg from Antioch.

The dominant commercial use in Antioch is County East Mall, a regional shopping center located near Pittsburg's eastern boundary. Other commercial uses are generally neighborhood-oriented, such as the city's downtown. The city plans to limit regional commercial development to County East Mall and the commercial area adjacent to the center.

Antioch's current General Plan (1988) identifies over 1,000 acres of vacant land available for development with industrial and employment-generating uses. In particular, land in the southeastern corner of Antioch's Planning Area, known as Future Urbanization Area #2, is reserved for industrial/business park development. Industrial Parks are encouraged to locate along major circulation and transportation routes.

The General Plan includes discussion of a number of Focused Policy Areas which require more detailed policies for their development or redevelopment. Several areas have significant development potential, including:

- *East Wilbur Avenue/18th Avenue.* At 190 acres. this primarily vacant area is considered prime land for the development of employment-generating light industrial uses because of its proximity to State Route 4 and the Burlington Northern & Santa Fe Railroad.
- *Chevron Property.* Located at a visible site near Pittsburg at Buchanan and Somersville Roads, this 194-acre parcel is outside Antioch city limits, but within its SOI. Previously the site of a crude oil tank farm, this vacant area is seen as a gateway to the city; thus, policies stress densities and types of development appropriate to the area's location. Additional traffic generated by development of the site may create adverse impacts on the adjacent circulation system.
- *Dobrich Area.* This 20-acre site is located in Southeast Antioch and is currently vacant. It is designated as a future business park, with about 25 percent set aside for retail uses.

CLAYTON

The City of Clayton is located southeast of Pittsburg's southern Planning Area boundary. The city is primarily residential, with a predominance of low-density, single-family homes. Clayton's General Plan (1985) emphasizes preserving the city's rural character by maintaining single-family housing as the dominant land use.

Commercial activity is limited to the Town Center area, and Kirker Pass and Marsh Creek Roads. Town Center is the Clayton's historical commercial area, with neighborhood and community commercial uses. Marsh Creek Road is the location of the city's few "convenience commercial" establishments, considered neighborhood-serving retail compatible with surrounding residential areas.

BRENTWOOD

Brentwood is not located immediately adjacent to Pittsburg; its western Planning Area boundary coincides with Antioch's. However, a discussion of the city's land use policies is useful because of its rapid rate of growth. With a 152 percent increase in population between 1990 and 2000 (according to ABAG Projections 2000), Brentwood is the fastest growing city in the Bay Area. Historically an agricultural community, 60 percent of the incorporated area was in agricultural use or was vacant at the time the current General Plan was completed in 1993. The remaining incorporated area was primarily single-family residential. Commercial development is concentrated in the Brentwood's downtown.

Brentwood's economic development strategy focuses on Activity Centers, which are locations suitable for office, retail, and industrial activity. Five Activity Centers have been identified: three are located at key intersections of the proposed Delta Expressway, one at State Route 4 and Sand Creek Road, and one in downtown. The General Plan also delineates a number of Special Planning Areas. While many of these areas are not likely to develop within the current General Plan's timeframe, the policies will provide direction in the event that development does occur. The 15 Special Planning Areas total 8,135 acres. Of this, a 5,500-acre area has been set aside as a mixed-use master planned development. Recommended uses for the remaining acreage focus primarily on residential development, with some open space and commercial uses. Brentwood is currently undertaking an update of its General Plan to determine appropriate areas for new growth.

4 Environmental Setting, Impact Analysis & Mitigation

Note: The tables, figures, and policies referenced within the mitigation measures/General Plan policies in this chapter are those located within the City of Pittsburg General Plan.

4.1 LAND USE

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding land use, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 3: Land Use (June 1998), available from the Pittsburg Community Development Department.

Pittsburg's land use pattern is reflective of its history as an industrial center of Contra Costa County. The City's Downtown and industrial core are near water and rail transportation corridors—the Sacramento River Delta and the Burlington Northern & Santa Fe (BNSF) and Southern Pacific railroads. As the City grew southward, auto-oriented commercial centers and residential subdivisions became dominant, and regional streets and highways such as State Route 4 became major transportation routes.

Residential and commercial developments in Pittsburg are characteristic of the period in which they initially developed. Compact, smaller scale neighborhoods in older areas, such as Downtown, contrast with sprawling new developments within the southern hills. Locally-owned stores coexist with large, corporate retailers through the length of Railroad Avenue, the City's main north-south artery. The advantages of visibility and vehicular accessibility are now encouraging large-scale commercial development in eastern Pittsburg along State Route 4.

Several geographic features distinguish the City's Planning Area. Browns Island, located across New York Slough within the River Delta, is visible from the waterfront. Steep hills, reaching an elevation of almost 1,900 feet, provide a distinctive backdrop to the south, and define the limits of urban development. The Black Diamond Mines Regional Preserve provides access to open space within the southeastern Planning Area.

Existing Land Use Distribution

The Pittsburg Planning Area comprises a total of 27,000 gross acres (42.1 square miles). Of this area, 10,000 gross acres (15.6 square miles) lie within City limits. The community of Bay Point lies in the Sphere of Influence and encompasses 2,300 gross acres. Wetlands and Suisun Bay/Sacramento River environs account for 6,760 additional acres. Vacant, rolling hills constitute approximately 8,930 acres (33 percent of the Planning Area).

Predominant land uses within the Planning Area include residential neighborhoods and industrial facilities. Residential uses comprise 2,700 net acres (33 percent of total developed area), and can be found in every subarea except the industrial Loveridge and Northeast River subareas. Pittsburg contains 1,500 net acres (19 percent) of industrial, which are located in the subareas north of State Route 4. Commercial uses, encompassing 400 acres (5 percent), are located primarily along major transpor-

tation corridors such as Railroad Avenue and State Route 4. These uses are supplemented by 460 acres (6 percent) of public or quasi-public facilities, and 2,700 net acres of parks and open space (33 percent). The high proportion of parks and open space land is due in part to a large concentration at Stoneman Park (190 acres), and inclusion of large regional open spaces such as Browns Island and Black Diamond Mines Regional Preserve. Approved development and projects currently under construction account for about 830 acres, or 11 percent, of the City's total net acreage. Table 4.1-1 and Figure 4.1-1 describe the City's existing land use distribution.

Table 4.1-1
Existing Land Use: Pittsburg Planning Area, 2000

Land Use[1]	Within City Limits (net acreage)	Outside City Limits (net acreage)	Total	Percent of Total
Residential	2,450	254	2,704	33%
Commercial	393	30	423	5%
Industrial	938	577	1,515	19%
Public/Quasi Public	418	43	461	6%
Parks/Open Space	610	2,055	2,665	33%
Utility/ROW	231	123	354	4%
Total	5,040	3,082	8,122	100%

[1] Includes developed land only.

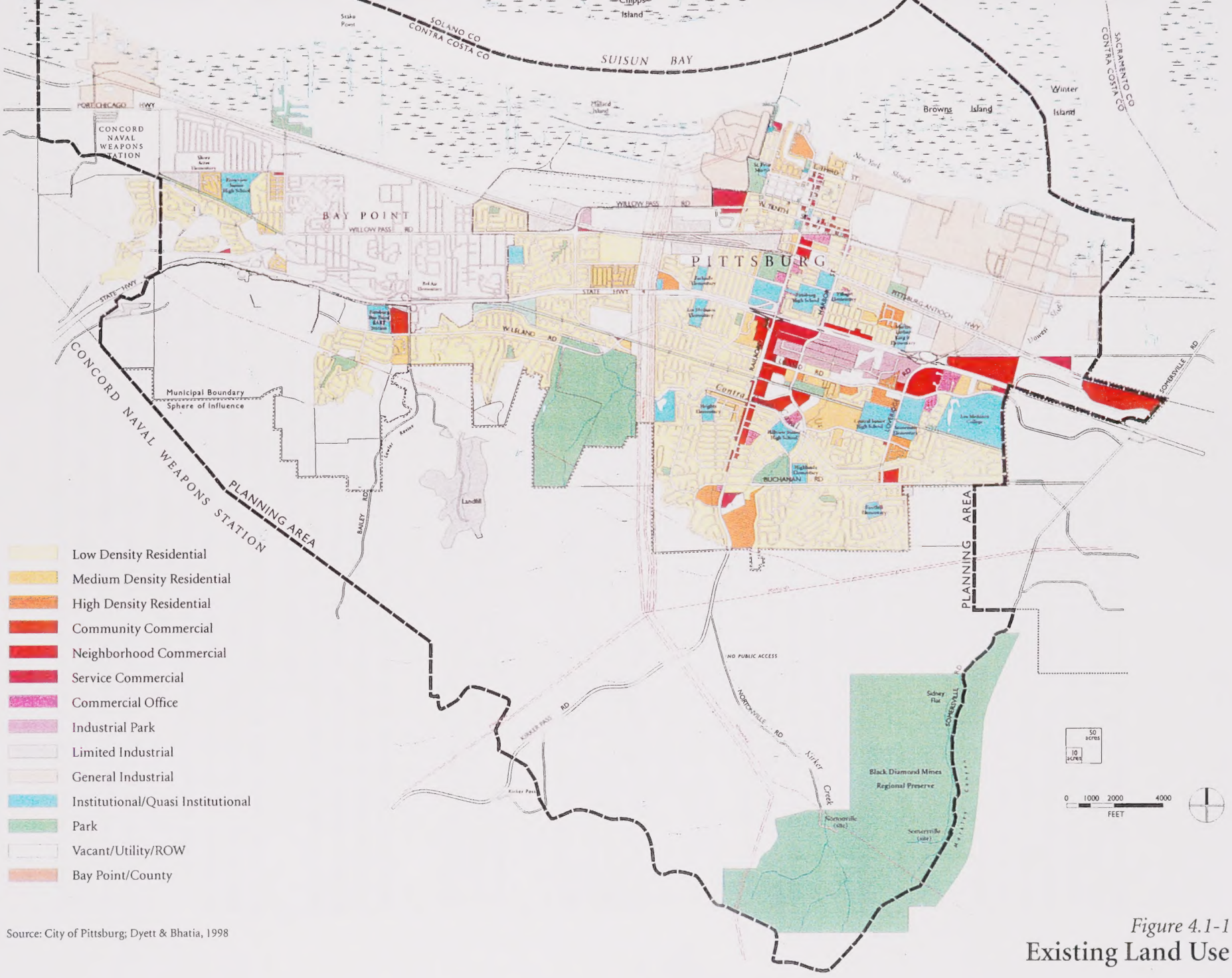
Source: Dyett & Bhatia

Residential Uses

Residential development is the dominant use in the City, comprising 33 percent of the net land area within City limits. With over a century of development, residential neighborhoods in Pittsburg represent a wide range of development types. These range from traditional Downtown neighborhoods with a gridiron street pattern to the emerging commuter neighborhoods at the City's fringe. The more recently developed neighborhoods, especially at the City's southern fringe, are typified by suburban-style residential development – large expanses of residential development with little or no other use, the layout dominated by cul-de-sacs with few through-streets, and often built within peripheral walls. Low Density Residential uses, occupying 2,080 acres, comprise about 85 percent of the land area devoted to residential uses in the City. While Medium and High Density residential developments can be found in most of the subareas in the City, they are generally located near commercial uses and major rights-of-way.

Commercial Uses

Pittsburg's commercial centers are concentrated primarily in five areas: Downtown, Railroad Avenue, Bailey Road adjacent to the BART station, Loveridge Road at East Leland Road, and Century Boulevard along State Route 4. Downtown, Railroad Avenue, and Bailey Road have smaller Community Commercial centers, while large value-oriented and warehouse-style Community and Regional Commercial uses are located along Loveridge Road and Century Boulevard. Service Commercial uses are concentrated along East Tenth Street in Downtown, and between the BNSF and Southern Pacific railroad tracks in the East Central subarea. Business Commercial uses, which were designated Industrial Park in the 1988 General Plan, can be found along State Route 4, between Railroad Avenue and Loveridge Road.



Source: City of Pittsburg; Dyett & Bhatia, 1998

Figure 4.1-1
Existing Land Use

Industrial Uses

Pittsburg is known for its steel and chemical industries. Originally located along the Sacramento River Delta to facilitate transportation, these industrial uses continue to dominate the waterfront. The Northeast River subarea is the site of major operations such as USS-Posco, Koch, Johns Mansfield, and Dow Chemical. A deep-water port is also located along the waterfront. All industrial uses are located north of State Route 4, primarily within the Northeast River and Loveridge subareas, with the exception of the Southern Energy (formerly PG&E) power plant west of Downtown. A smaller pocket of industrial uses is located along the BNSF and Southern Pacific railroad tracks in the West Central subarea.

Vacant Land

Of the 1,780 acres of land within the City that are currently vacant, approximately 1,090 acres are on slopes less than 15 percent. Outside of City limits, 10,430 acres of land are considered vacant; however, 2,410 acres of this is marshland in the Northwest River subarea, and only 1,610 acres are on slopes less than 15 percent. In addition, some of this land may have other environmental or accessibility constraints. The largest pockets of vacant land in the City not constrained by topography are in the Northeast industrial area, where soil contamination may be a problem. Large expanses of open space land also blanket the hillside areas south of the City limits.

Planning Subareas

The City's subareas are defined geographically, following either major transportation routes—such as State Route 4 or the BNSF railroad—or City/neighborhood boundaries. Figure 3.4-1 (in the previous chapter) shows the proposed General Plan land use distribution, while Figure 4.1-2 shows the planning subarea boundaries. Table 4.1-2 presents the land use distribution for each subarea by generalized use categories.

Subareas 1-11 are within existing City limits, while subareas 12-15 include the Bay Point community and unincorporated lands outside of Pittsburg's Sphere of Influence. With the exception of Downtown and East Leland, the subareas are generally dominated by one land use type. A description of the subareas follows:

1 *Downtown.* Retail and commercial office uses line Railroad Avenue, north of East Tenth Street. Service commercial uses are located along East Tenth Street, the old County highway. Residential neighborhoods surround the commercial corridors, with newer, higher density developments located near the waterfront. A new marine commercial center, featuring public access to the shoreline, is proposed at the terminus of Harbor Street.

2 *Northeast River.* Northeast River is characterized by large-scale heavy industrial operations and vacant land. USS-Posco, Dow Chemical, and the Delta Diablo Wastewater Treatment Plant are some of the facilities located in this subarea. Wetlands comprise a small portion of the northeastern corner where Kirker Creek meets the Sacramento River. Browns Island, located across New York Slough, is a Regional Shoreline Preserve.

3 *Loveridge.* Large industrial uses and vacant sites constitute a majority of Loveridge, adjacent to the Loveridge Road/State Route 4 interchange. A variety of land uses line East Leland Road, including a community commercial center, business commercial complex, service commercial node, and several multi-family housing developments. Between the BNSF railroad tracks

and State Route 4, heavy industry and business commercial parks are planned. Land dedicated to regional commercial (big-box) retailers is concentrated along Century Boulevard.

4 *East Central.* Located east of Railroad Avenue and north of State Route 4, East Central contains some of the City's older neighborhoods; most notably the traditional Central Addition, where many industrial executives resided in decades past. Residential uses comprise more than half of the net land area. Neighborhood commercial establishments can be found on Railroad Avenue and adjacent to State Route 4, and commercial offices on Railroad Avenue and Harbor Street. Pittsburg High School is also located in this subarea. Vacant sites east and south of the former Vogue Theater at the corner of Central and Railroad Avenues represent a significant redevelopment opportunity.

5 *Railroad Avenue.* The City's major commercial corridor also serves as a major north-south arterial connecting Downtown to the southern City limits. Services and business commercial uses line the corridor north of State Route 4, while community commercial activities constitute the southern portion of the corridor. Pittsburg's Civic Center is also located in this subarea, along with City Park, one of the City's major recreational areas.

6 *East Leland.* Similar to Downtown, East Leland is characterized by a diverse mix of uses. However, its commercial establishments, offices, and business/industrial parks have been developed at a much larger scale, reflecting a less dense suburban land use pattern. A proposed mixed-use, business commercial node comprises nearly all land north of East Leland Road, adjacent to the proposed Railroad Avenue BART Station. Multi-family residential uses are clustered along East Leland Road and Delta De Anza Trail in the southeastern portion of the subarea. Small World Park and Los Medanos Community College are also located within the area.

7 *Buchanan.* Located along the City's southeastern boundary, the Buchanan subarea consists of many newer single-family residential subdivisions. Additionally, this subarea features a multi-unit senior community along Kirker Creek. Two parks and three schools are located here, along with a few commercial establishments. Low-density residential acreage is available for housing development along the southeast boundary of the Planning Area.

8 *Woodlands.* Like Buchanan, Woodlands contains many newer single-family housing developments. A small park and one elementary school serve the subarea. Clustered, low-density housing is proposed for the small valleys adjacent to Kirker Creek.

9 *West Central.* Residential neighborhoods comprise the primary use in West Central. Two small neighborhood commercial uses serve the subarea (Fountain Plaza and Parkside Market). Two mobile home parks also lie within the area, adjacent to the PG&E transmission corridor. Business commercial, services, and industrial parcels adjacent to and north of the BNSF railroad tracks have potential for redevelopment opportunities.

10 *West Leland.* West Leland is dominated by single-family residential neighborhoods, and the City's joint Golf Course/Stoneman Park recreational facility. Additional public facilities include Del Monte Community Center, an elementary school, and a new fire station.

11 *Southwest Hills.* Annexed by the City in 1990, this subarea consists primarily of undeveloped, rolling hills. However, the area is the site of the approved 640-acre San Marco residential development, which will include both low and high-density residential units. The Oak Hills and Alves Ranch residential subdivisions are also located within this subarea. Multi-family housing developments will be concentrated along the West Leland Road corridor. A mixed-use, community commercial center at the West Leland Road/San Marco Boulevard intersection

will serve nearby neighborhoods, while business commercial parks will be developed along West Leland Road. A small portion of the Pittsburg/Bay Point BART Station Area Specific Plan area also lies within this subarea.

Unincorporated Areas

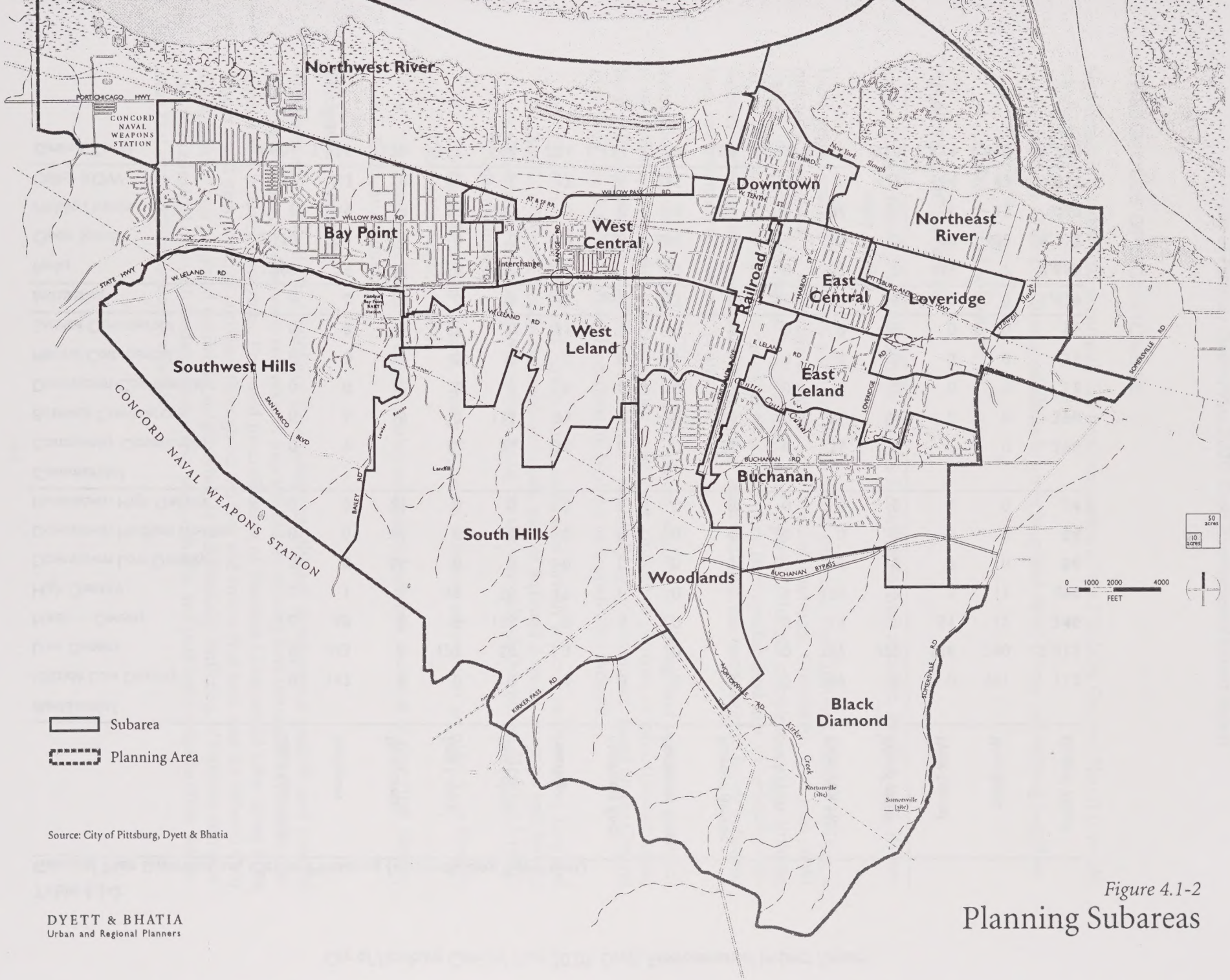
Subareas 12-15 comprise the unincorporated portions of the Pittsburg Planning Area. These areas include:

12 *Northwest River.* Two major uses are located in the Northwest River: the Southern Energy (previously PG&E) Power Plant, and a small portion of the Concord Naval Weapons Station. The remainder of Northwest River consists of marshland.

13 *Bay Point.* Located west of Pittsburg, residential neighborhoods comprise the primary land use in the unincorporated community of Bay Point. Multi-family housing is clustered along Bailey Road north of the Pittsburg/Bay Point BART Station, and commercial activities line the Willow Pass Road corridor. A large swath of industrial land lies to the north of the Pittsburg/Bay Point BART Station Specific Plan. The Mount Diablo Unified School District operates two elementary schools within the community.

14 *South Hills.* South of the City limit, South Hills consists of undeveloped, rolling hills. The Keller Canyon Landfill is in the northwestern portion of the South Hills subarea, and is surrounded by an open space buffer.

15 *Black Diamond.* Located in the far southeastern corner of the City's Planning Area, Black Diamond also features undeveloped, rolling hills. The Black Diamond Mines Regional Preserve offers a variety of recreational opportunities, such as trails and picnic areas, and includes current ranching operations.



Source: City of Pittsburg, Dyett & Bhatia

DYETT & BHATIA
Urban and Regional Planners

Figure 4.1-2
Planning Subareas

Table 4.1-2
General Plan Distribution, City of Pittsburg (not including Bay Point)

	Black Diamond	Buchanan	Downtown	East Central	East Leland	Loveridge	Northeast River	Northwest River	Railroad Avenue	South Hills	Southwest Hills	West Central	West Leland	Woodlands	**Grand Total**
Residential															
Hillside Low Density	0	142	0	0	0	0	0	0	0	0	389	0	0	181	**712**
Low Density	0	743	0	173	50	3	0	0	4	0	342	322	536	240	**2,412**
Medium Density	0	60	0	9	128	0	0	0	1	0	14	67	51	12	**340**
High Density	0	1	0	19	50	19	0	0	0	0	178	10	0	13	**290**
Downtown Low Density	0	0	56	0	0	0	0	0	0	0	0	0	0	0	**56**
Downtown Medium Density	0	0	94	0	0	0	0	0	0	0	0	0	0	0	**94**
Downtown High Density	0	0	24	0	0	0	0	0	0	0	0	0	0	0	**24**
Commercial															
Community Commercial	0	9	1	12	26	236	0	0	75	0	35	3	1	0	**398**
Business Commercial	0	6	0	0	116	95	0	0	54	0	56	64	0	0	**390**
Downtown Commercial	0	0	12	0	0	0	0	0	0	0	0	0	0	0	**12**
Marine Commercial	0	0	37	0	0	0	0	1	0	0	0	0	0	0	**39**
Service Commercial	0	0	12	17	0	31	0	0	5	0	0	26	0	0	**91**
Industrial	0	0	18	0	0	320	651	223	0	156	2	58	0	0	**1,429**
Parks	1,395	39	46	2	32	12	553	60	32	0	33	8	459	7	**2,680**
Open Space	2,510	226	0	0	0	0	228	1,689	0	2,674	1,191	13	98	483	**9,112**
Pinblic / Institutional	0	49	18	63	192	0	0	0	27	0	26	24	56	13	**468**
Utility ROW	99	62	8	22	6	37	39	215	1	234	0	123	124	62	**1,032**
Grand Total	**4,004**	**1,336**	**328**	**317**	**598**	**754**	**1,472**	**2,189**	**199**	**3,065**	**2,267**	**718**	**1,324**	**1,010**	**19,580**

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if it would result in:

- Creation of land use incompatibilities between proposed development and existing neighborhoods; or
- Displacement of residents or businesses.

ANALYSIS OF IMPACTS

Impact 4.1-a New urban development may be incompatible with adjacent, existing uses. *[Potentially significant]*

Land use compatibility describes a state in which a land use exists and functions without creating a nuisance, hazardous, or unhealthy condition with adjacent land uses. Compatible land uses could include, for example, residential neighborhoods next to parks, industrial complexes next to airports, or professional offices next to commercial retail businesses. Incompatible land uses are generally considered to create conflict with other uses, such as residential neighborhoods next to heavy industrial uses, or elementary schools next to airports.

Intensification and expansion of urban development adjacent to existing land uses may create incompatibilities with regard to site activities, noise levels, circulation patterns, or infrastructure needs. Such risk of land use compatibility is considered a *potentially significant* impact. Based on the General Plan Land Use Diagram, potential locations for land use incompatibility include:

- *Downtown.* Industrial and Service Commercial uses directly adjacent to Downtown Low and Medium Density Residential neighborhoods, east of Railroad Avenue. Business and Service Commercial uses along Willow Pass Road, on the west side of Downtown Medium Density Residential units.
- *Northeast River/East Central.* Heavy Industrial activities adjacent to an older Low Density Residential neighborhood.
- *Southwest Hills.* Business Commercial development both east and west of new High Density Residential housing.

Mitigation Measures

Development standards that reinforce Downtown's traditional development pattern and provide greenways through and between redeveloped uses will reduce existing land use conflicts between residential and industrial activities. Proposed intensification of Business Commercial areas along State Route 4 and major arterial corridors throughout the City will ensure that such uses are focused away from existing and proposed residential neighborhoods. Additionally, buffering of business commercial and industrial uses with landscape screening, wide setbacks, and parking/storage facilities will ensure that such activities are more discreet.

The proposed General Plan provides the following policies targeted at minimizing potential land use incompatibilities:

2-P-6 During development review, consider project compatibility with existing surrounding land uses. Ensure that sensitive uses—such as residences, schools, and parks—are not subject to hazardous or unhealthy conditions.

2-P-12 Ensure that buffers – including landscaping, berms, parking areas, and storage facilities – are used to separate potentially incompatible activities.

2-P-36 During project review, ensure that all industrial development along public streets and in areas adjacent to Downtown maintain at least a 25 foot wide landscaped buffer (using trees and shrubs for screening) along the street.

2-P-38 Encourage the development of office and support uses along street frontages in the Northeast River subarea to buffer heavy industrial activities.

2-P-50 Ensure that service commercial development along Solari Street provides adequate buffers (such as landscaping and parking areas along street frontage) to reduce conflicts with adjacent residential units.

2-P-58 Ensure that the small business commercial center at the southern end of Railroad Avenue (at Buchanan Road) is compatible with the scale of surrounding uses.

5-P-23 During development review, ensure that transitional buffer areas—such as landscaped berms, parking lots, and storage areas—are placed between new residential units and the BNSF railroad tracks along the southern edge of the West Tenth Street Neighborhoods.

5-P-32 Require transitional buffers along the edges of new and redevelopment projects adjacent to the industrial uses east of Downtown. Such buffers may include a combination of landscaped berms, parking areas, pedestrian walkways, and storage facilities.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.1-b Proposed land uses and policies under the General Plan may be inconsistent with land use designations and Urban Limit Line in the Contra Costa County General Plan. *[Less than significant]*

Within the proposed General Plan, sites with environmental and/or safety constraints are designated as Open Space. Such constraints include wetlands and creek corridors, slopes over 30 percent, viewsheds and ridgelines, areas subject to storm flooding, and sensitive wildlife habitats. New residential development approved for the South Hills area is considerate of such environmental constraints.

Due to such constraints, several small areas designated for clustered Hillside Low Density Residential development may not be fully contiguous with existing City limits, and reside south of the County's Urban Limit Line (ULL):

- *Southwest Hills.* Over 165 acres of Hillside Low Density Residential clusters along proposed San Marco Boulevard and Bailey Road, adjacent to the Concord Naval Weapons Stations Blast Easement.
- *Woodlands.* Hillside Low Density Residential clusters along Kirker Pass and Nortonville Roads, totaling 180 acres.
- *Buchanan.* Approximately 142 acres of Hillside Low Density Residential clusters adjacent to proposed Buchanan Bypass.

The ULL, recently amended by Contra Costa County and shown in Figure 4.1-4, is a significant factor considered by LAFCO during annexation proceedings. However, State law does not require consistency with County growth limits. Additionally, the County ULL will expire in 2010, while the City's General Plan is intended to guide development through 2020. Therefore, inconsistency with the County ULL is considered a *less than significant* impact.

The City's proposed General Plan is consistent with the County General Plan (and ULL) for much of the unincorporated land within the Planning Area, including Bay Point. The amount of land area designated for urban development under the General Plan is significantly lower than the potential growth available with full buildout up to the County's ULL.

Mitigation Measures

Because the proposed General Plan is intended to guide urban growth for a longer period than the County ULL and State law does not require consistency between the two, the impact is considered *less than significant* and mitigation is not needed. However, the proposed General Plan promotes planned growth and coordination with LAFCo on annexation decisions.

2-P-1 Review the City's Sphere of Influence (SOI) every 5 years. Ensure necessary annexation and SOI changes through coordination with the County and Local Agency Formation Commission (LAFCo), according to the 10- and 20-year annexation goals illustrated in Figure 2-2.

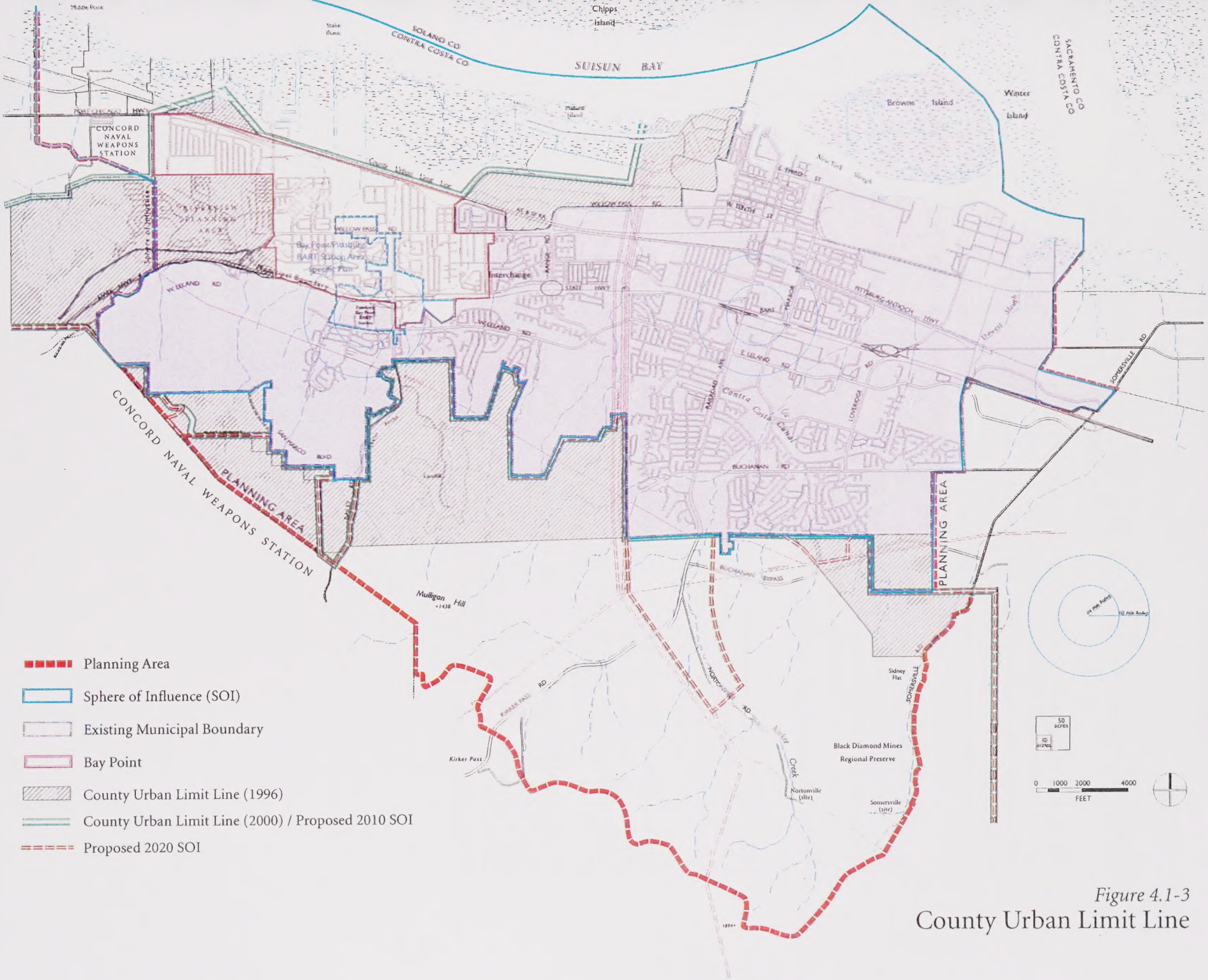


Figure 4.1-3
County Urban Limit Line

Impact 4.1-c Reuse and intensification may result in the loss of existing businesses or displacement of residents. *[Potentially significant]*

Due to intensification allowed under the General Plan, existing residents and businesses may be displaced. However, the availability of vacant residential, commercial and industrial land within the City is adequate to accommodate the displaced population. Ancillary costs associated with displacement, such as moving costs and rent increases, pose the most significant threat to relocation. Displacement of existing residents or businesses due to redevelopment is considered a *potentially significant* impact. According to the General Plan, land uses slated for intensification include:

- *Downtown.* Expansion of the Downtown Commercial district along Railroad Avenue to include mixed-use retail, service, office and residential activities at a maximum 2.0 FAR. Conversion of Downtown Low Density Residential adjacent to West Tenth Street to Downtown Medium (12.1-18 un/ac) and High (18.1-30 un/ac) Density Residential.
- *East Central.* Conversion of lands between the railroad tracks from Neighborhood Commercial to Service Commercial uses at 0.5 FAR.
- *Proposed Railroad Avenue BART Station Area.* Intensification of existing Service Commercial and Industrial uses to a mixed-use transit-oriented district focused on Business Commercial employment – such as high-tech manufacturing and research & development industries – and High Density Residential. Maximum FAR increased to 2.0.
- *Pittsburg/Bay Point BART Station Area.* Redesignation from Community Commercial and Medium Density Residential to mixed-use Community and Business Commercial activities, according to the Pittsburg/Bay Point BART Station Area Specific Plan. Additional intensification of proposed housing stock to High (14.1-25.0 un/ac) Density Residential.
- *Southwest Hills.* Redesignation of vacant lands from Agricultural Preserve, Estate, Low, and Medium Density Residential to allow significantly more housing. Proposed neighborhoods include Hillside Low (1.1-5.0 un/ac), Low (1.1-7.0 un/ac), Medium (7.1-14.0 un/ac), and High (14.1-25.0 un/ac) Density Residential. Development of Business Commercial employment center at 1.0 FAR, and a mixed-use Community Commercial village along West Leland Road.

Table 4.1-3
Standards for Density and Development Intensity

Land Use Category	*Residential Density (du/acre) Range*	*Floor Area Ratio (FAR) Maximum*
Residential		
Hillside Low Density Residential	1.1 - 5.0	n/a
Low Density Residential	1.1 - 7.0	n/a
Medium Density Residential	7.1 - 14.0	n/a
High Density Residential	14.1 - 25.0	n/a
Downtown Low Density	5.1 - 12.0	n/a
Downtown Medium Density	12.1 - 18.0	n/a
Downtown High Density	18.1 - 30.0	n/a
Commercial*		
Community Commercial	n/a	0.5
Business Commercial	n/a	1.0
Downtown Commercial	General Plan Table 5-3	
Marine Commercial	n/a	0.5-1.5
Service Commercial	n/a	0.5
Industrial		
General Industrial	n/a	0.25

* Higher FARs are allowed in mixed-use commercial areas; see General Plan Section 2.5: Planning Subarea policies.

Source: City of Pittsburg, Dyett & Bhatia

Although the General Plan does not mandate redevelopment of underutilized commercial and residential areas, allowing higher development intensities than current development may spur reuse/intensification, including potential redevelopment by the City. If the City were to undertake redevelopment, project-specific environmental analysis would be conducted.

Mitigation Measures

The proposed General Plan provides the following policies targeted at providing land and incentives for relocation of existing businesses and residents due to redevelopment:

2-P-7 In the case of resident and/or business displacement due to redevelopment activities, provide tenants / property-owners with fair market values and moving costs.

Significance After Mitigation

Implementation of Policy 2-P-7 will reduce the impact to a less-than-significant level.

4.2 COMMUNITY CHARACTER

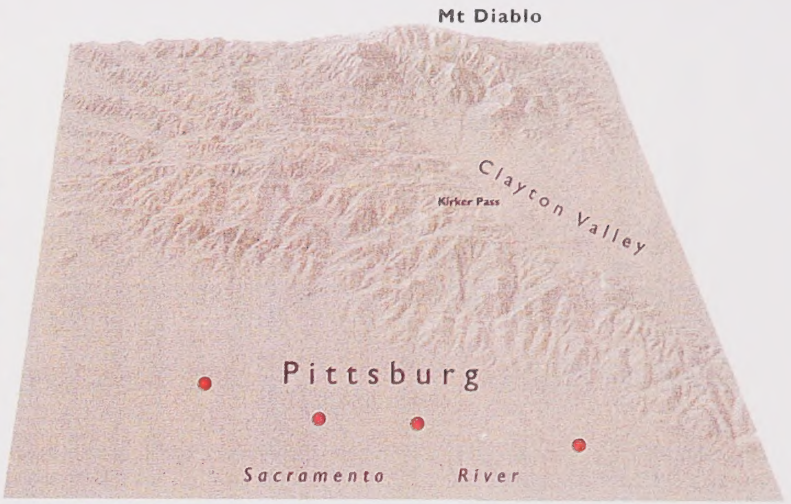
ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding community character, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 3: Land Use and Chapter 7: Downtown (June 1998), available from the Pittsburg Community Development Department.

Views

The most identifying feature lending Pittsburg a sense of character is its location between the rolling, grassy hills to the south and Suisun Bay/Sacramento River Delta to the north. Views of both natural features are important to the visual quality of the community. Visual connections to the Suisun Bay waterfront are limited due to the historical development of the community as a military and industrial node within the County. Large-scale industrial facilities with deep-port shipping facilities line the waterfront east of Downtown, while wetlands and the Concord Naval Weapons Station lie to the west.

From the flatland areas of Pittsburg, views of the southern hills are prominent. Rolling, grassy slopes and the larger, vegetated mountains of Black Diamond Mines Regional Preserve rise to meet the skyline. Through streets designed in a north-south configuration afford views of the hills. Larger open spaces, such as the Civic Center and Stoneman Park, also provide unobstructed views. Figure 4.2-1 illustrates a Viewshed Analysis conducted within the Planning Area. Using the ArcView program, four "viewpoints" throughout the City were selected, and digital elevation modeling used to determine what hills and ridgelines were visible from each. Areas visible from all four viewpoints include multiple small ridgelines in the southern hills, particularly areas southwest of existing development surrounding the Pittsburg/Bay Point BART station. Views of the hills to the south, and Suisun Bay to the north, create a sense of identity for City residents.



Viewshed analysis viewpoint

Areas visible from all of the viewpoints

Areas visible from at least one of the viewpoints

0 2000 4000 8000
FEET

Figure 4.2-1
Viewshed Analysis

NEIGHBORHOOD DESIGN

An evaluation of the urban form characteristics of various neighborhoods reveals the changes that took place during Pittsburg's residential development history, and helps the City determine the types of urban forms it may wish to encourage. 100-acre square units were used to compare four neighborhoods – Central Addition, Pittsburg Heights, Buchanan, and Oak Hills (see Figure 4.2-2). Key findings of the analysis are:

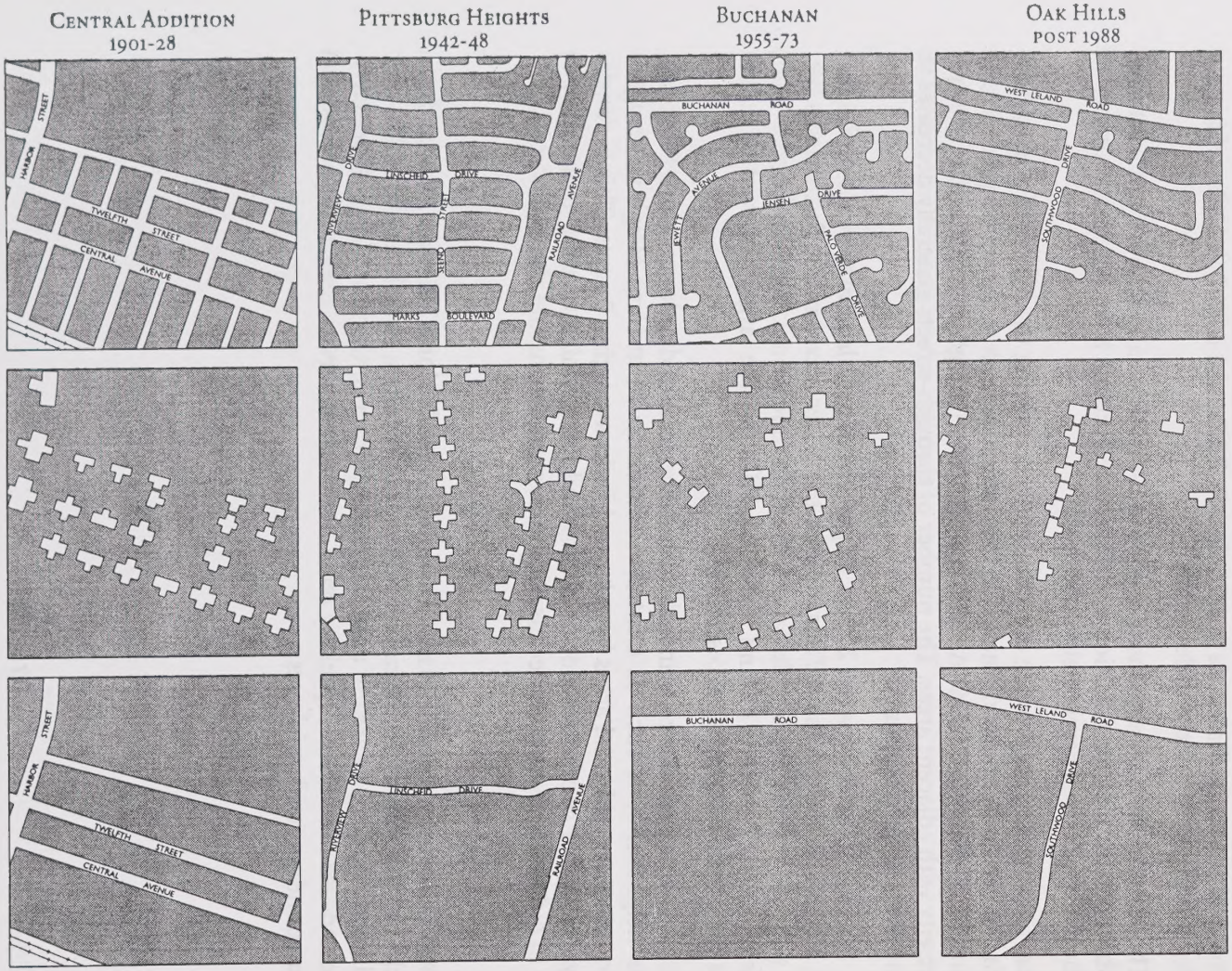
- *Overall Development Pattern.* The four neighborhoods analyzed represent residential development spanning most of this century. Central Addition's development pattern is typical of pre-World War II neighborhoods, with a gridded street pattern and densities that are high for single-family neighborhoods in Pittsburg. Pittsburg Heights represents housing construction that occurred immediately after the War, with a warped grid and lower density. The transformation of the grid to a suburban style is complete in Buchanan and Oak Hills, which are characterized by curving streets and cul-de-sacs.
- *Intersections.* The number of intersections is a good indication of a neighborhood's internal level of accessibility. Both Central Addition and Pittsburg Heights have a greater number of intersections than the two more recent neighborhoods.
- *Through-Streets.* Through-streets provide accessibility by traversing the length of a neighborhood, connecting it with other parts of the City. Through-streets are not very frequent in any of the neighborhoods, though Central Addition with four through-streets has the greatest level of connectivity with adjacent areas. The number of through-streets generally decreases in recent, more introverted developments.
- *Area of Streets.* Streets comprise between 25 and 28 percent of total land area in Central Addition, Pittsburg Heights, and Buchanan. Thus, despite the lower accessibility, Buchanan's layout does not provide more developable land area than traditional neighborhoods. With streets comprising only 17 percent of land area, Oak Hills has the largest amount of usable land, though at the expense of greater accessibility.
- *Average Block Size.* Average block size is an indicator of the scale of development. In Pittsburg, blocks in older neighborhoods such as Central Addition and Pittsburg Heights average 3 acres, while more recent residential areas have larger blocks averaging 7 acres. This is consistent with analyses of other components of neighborhood form, which reveal a greater degree of accessibility in older neighborhoods because of more intersections and through streets.

Downtown

As delineated in the 1986 Downtown Specific Plan, Downtown extends along Railroad Avenue, from the BNSF railroad tracks in the south to the Sacramento River in the north, stretching about 3/4-mile in either direction and encompassing an area of approximately 350 acres. Current City policies envision Downtown as a mixed-use center, with specialty retail, restaurants, service uses, and professional offices supported by surrounding residential uses.

Figure 4.2-2

Neighborhood Form Analysis



100-acre Analysis Unit (2,087 ft x 2,087 ft)

Intersections

Through Streets

Number of Intersections (T-intersections counted as 0.5)	17	20.5	11.5	8
Number of Through Streets	4	3	1	2
Number of Access Points	11	20	16	9
Area of Streets (acres)	25	27	28	17
Average Block Size (acres)	3	2.8	6.5	7.5
Typical Density (housing units per net acre)	10	8	6	8

0 500 1000 2000
FEET

Assets and Challenges

Downtown Pittsburg has many vital physical assets, including: a waterfront setting; accessible and central location integrated with surrounding residential uses; historical character and traditional urban structure with short blocks and through streets; and a pedestrian-orientation, with buildings that define the street edge and parking tucked behind buildings. Nonetheless, major challenges remain. Downtown has many vacant sites and buildings, lack of a critical mass of activity, connections to the water, or identity as the City's center. However, historic preservation and redevelopment efforts, and new residential construction are improving the area.

Connections, Views, and Street Pattern

Downtown is accessible both internally and from other parts of the City. However, physical and visual connections to the water are extremely weak. In effect, the water is hardly visible from any street in the Commercial Core. Barriers within Downtown consist of the BNSF tracks and perimeter walls around newer residential developments. Also, some of the transitions between residential neighborhoods and surrounding industrial uses are abrupt.

Possibly the most distinguishing landmark signaling one's arrival in Pittsburg is the Southern Energy (formerly PG&E) power plant, located on the bank of the Sacramento River west of Downtown, and visible from much of Downtown. Railroad Avenue offers views on either end of the street – the hills to the south and a small statue to the north. However, a slight curve between Fourth and Sixth streets interrupts the visual continuity. Riverview and Central Harbor Park offer views of the Sacramento River and passing ships.

Downtown Pittsburg has a traditional gridiron street system. However, four large recent residential developments—Marina Heights, Marina Walk, Bay Harbor Park, and Village at New York Landing—have replaced the original grid with inward-looking, curvilinear street systems with few access points.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results include:

- Increased introversion of residential neighborhoods;
- Considerable interruption in views of southern hills;
- Substantial change in Downtown character; or
- Decreased public access to the Suisun Bay waterfront.

ANALYSIS OF IMPACTS

Impact 4.2-a **Patterns of new development may promote stronger connections between schools, parks and creeks, commercial centers, and adjacent residential neighborhoods.** ***[Beneficial]***

Interconnected street networks, bike paths, and creekside trails would create more convenient access from residential neighborhoods to commercial, employment, and community centers. Efficient and convenient access to such centers is an important factor in resident's "quality of life". Creation of

stronger connections between compatible land uses is considered a *beneficial* impact. The General Plan proposes substantial improvements in connectivity in the following areas:

- *Marina Boulevard.* Multi-use path providing connections from Downtown and adjacent neighborhoods to the Suisun Bay waterfront.
- *8th Street Linear Park.* Along an abandoned railway corridor, this linear park connects several Downtown neighborhoods.
- *Railroad Avenue Linear Park.* Linear park ensures pedestrian safety along this busy arterial roadway. Proposed extension will connect Railroad Avenue commercial activities to Civic Center and City Park north of State Route 4.
- *Delta De Anza Trail.* Focus on improving linkages to the City-wide trail from residential, commercial, and institutional uses.
- *Proposed West Leland Road Linear Park.* Proposed linear park extending from the Pittsburg/Bay Point BART to mixed-use Community Commercial village at proposed San Marco Boulevard. Intended to provide connections between transit station, multi-family housing, employment centers, and shopping.
- *Through Collector Streets.* Collector streets should provide connections between adjacent neighborhoods.
- *Hillside Trail System.* Construction of multi-use trails through open space areas in clustered Hillside Low Density Residential neighborhoods, providing connections to existing City-wide trails.

Designing new housing with multi-use connections, as well as linking them to existing, more introverted residential neighborhoods, will allow residents to move between community focal points using a variety of transportation modes (including walking, biking, and driving). Providing linkages from neighborhoods to distinct public spaces—such as Downtown and Civic Center, Suisun Bay waterfront, BART Stations, schools and parks—will promote a stronger sense of community. Proposed General Plan policies targeted at providing stronger connections between different community focal points include:

2-P-47 Ensure that as Loveridge builds out, adequate street connections are provided to efficiently move traffic through and beyond the area's regional and business centers (as designated by the City's traffic LOS standards, see *Chapter 7: Transportation*).

2-P-49 Explore the feasibility of direct pedestrian connections across the BNSF Railroad between Central Addition and Columbia Park Manor neighborhoods.

2-P-53 Pursue the extension of the Railroad Avenue linear park along the north side of State Route 4, providing a pedestrian/bicycle connection from the City's major shopping corridor and to the Civic Center and City Park.

2-P-64 Work with Los Medanos College and the City of Antioch to undertake a study exploring the viability of a street connection between Leland and Buchanan Roads, along the eastern edge of the College at the border of the two cities.

2-P-66 Ensure that new residential development south of Buchanan provides both street and pedestrian connections to adjacent residential areas.

2-P-78 During the development of a specific plan for the proposed Railroad Avenue BART Station area, ensure that pedestrian and transit amenities are provided to connect West Leland residents with the Station area.

4-P-27 Ensure that all residential developers provide multi-use trails or trailheads connecting to local schools and parks, commercial centers, and regional open spaces.

4-P-38 Provide incentives to redevelop blighted commercial properties along Railroad Avenue. Encourage developers to provide pedestrian amenities and focus on connections between the street and surrounding properties. *(Railroad Avenue, State Route 4 to Buchanan Road)*

4-P-70 Ensure that all new business commercial employers provide safe and convenient pedestrian and bicycle connections to adjacent neighborhoods, the proposed BART Station, Delta De Anza Trail, Railroad Avenue Linear Park, and employment and activity centers. *(Railroad Avenue BART Station Area)*

4-P-73 Pursue the development of a linear park along West Leland Road, connecting the Pittsburg/Bay Point BART Station Area to San Marco Village. *(San Marco Village)*

4-P-80 Ensure that new developments provide an integrated pattern of streets and pedestrian paths that provide connections between neighborhoods. As part of the City's Subdivision Regulations, establish street connectivity requirements.

5-P-33 During redevelopment of the West Tenth Street Neighborhoods, require that the grid street network and pedestrian connections are maintained.

5-P-41 Improve the pedestrian path along Marina Boulevard, connecting the Downtown core to the waterfront/marina area. Provide a wide path right-of-way, way-finding signage, landscaping, interpretive plaques, and street lighting.

7-P-37 Develop a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with City and County open space areas.

7-P-38 Ensure that residential and commercial developments provide pedestrian pathways between lots for direct routes to commercial centers, schools, and transit facilities.

8-P-18 Encourage new residential development in hillside areas to develop public trails and/or trailheads providing connections to other regional and local open spaces.

8-P-33 Emphasize the integration of land uses and activities surrounding Los Medanos Community College. Encourage physical connections between the College and surrounding neighborhoods, commercial areas, and open space resources

Mitigation Measures

Mitigation of the above impact is not necessary, as implementation of the above policies render it beneficial.

Impact 4.2-b New development may block views of hills and major ridgelines. *[Potentially significant]*

Residential development currently approved or proposed for the southern hills includes the San Marcos, Alves Ranch, and Highlands Ranch subdivisions. These residential neighborhoods will likely block views of the rolling, grassy hills currently located in the southern Planning Area. Construction of urban development within hillside views is considered a *potentially significant* impact.

According to the Viewshed Analysis illustrated in Figure 4.2-1, new development proposed in the General Plan with potential for blocking views from at least one viewpoint includes:

- *Buchanan.* Hillside Low and Low Density Residential clusters north of proposed Buchanan Bypass.
- *Southwest Hills.* Proposed Hillside Low, Low, and High Density Residential clusters south of State Route 4.

However, the General Plan delineates and preserves major and minor ridgelines throughout the southern hills (see Figure 4.2-3; a thick bar is used to identify major ridgelines, while a thin bar is used to identify minor ridgelines). Three components were used to define major and minor ridgelines: structure, elevation, and visibility. The structural component of ridgelines is the branching pattern of the ridge system. The major stem of the ridge system is considered a major ridgeline, while smaller branches are considered minor ridgelines. Elevation also distinguishes major – higher – ridgelines, from minor – lower – peaks. Finally, the Viewshed Analysis described above identifies ridgelines visible from several places within the City. This visibility analysis was used to ensure continuity among preserved ridges throughout the Planning Area.

Mitigation Measures

In order to preserve views, the General Plan proposes that residential development be designed with sensitivity to the natural landscape, using clustering to tuck units into valleys and preserve visible hillside areas. Stringent design standards proposed in the General Plan will ensure that highly visible slopes and ridgelines are preserved, and multi-use trails will provide residents with access along open slopes and canyons to the regional open space system. The proposed General Plan provides policies targeted at maximizing views of hills and ridgelines, while still allowing construction of new hillside development:

4-P-1 Require ridge setbacks for all new hillside development, including:

a. Building pads located at least 100 feet away from the crest of a major ridgeline (measured horizontally from the centerline), as designated in Figure 4-3; and

b. Structural elements of buildings, including rooflines and taller ancillary elements, located at least 100 ft below the crest of a major ridgeline, as designated in Figure 4-3.

4-P-2 As part of the development review process, require design review of proposed hillside development. Ensure that:

a. Hillside development is clustered in small valleys and behind minor ridgelines, to preserve more prominent views of the southern hills; and

b. Hillside streets are designed to allow open views by limiting the building of structures or planting of tall trees along the southern edge or terminus of streets.

4-P-9 Ensure that new hillside development preserves unique natural features by mapping all natural features as part of development applications, including landforms, mature tree stands, rock outcroppings, creekways, and ridgelines. During development and design review, ensure that site layout is sensitive to such mapped features.

4-P-15 Minimize the visual prominence of hillside development by taking advantage of existing site features for screening, such as tree clusters, depressions in topography, setback hillside plateau areas, and other natural features.

4-P-17 Encourage clustering of Hillside Low-Density units in the southern hills, with resulting pockets of open space adjacent to major ridgelines and hillside slopes. Allow density bonuses of 10 percent (maximum) for preservation of 40 percent or more of a project's site area as open space.

4-P-18 Allow flexible (for example, staggered) front and side building setbacks (including zero-lot-line and attached conditions) within clustered hillside residential areas if this allowance will protect an existing slope.

4-P-20 As part of the City's Hillside Development Standards, encourage architectural design that reflects the undulating forms of the hillside setting, such as "breaking" buildings and rooflines into several smaller components (see Figure 4-6).

4-P-25 Encourage developers to align and construct streets along natural grades. Minimize visibility of streets from other areas within the City (see Figure 4-7).

Figure 4.2-3

Major and Minor Ridgelines

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.2-c New development may alter the visual character of the hillsides. *[Significant]*

Allowing urban development within existing vacant hills will alter the visual character of the open slopes. Under the General Plan, existing undeveloped, grassy hills will be graded and developed with urban structures and infrastructure. Degrading the visual character of the southern hills is considered a *significant* impact. Proposed new development that may alter the visual character of the southern hills includes:

- *Buchanan.* Hillside Low and Low Density Residential within the Highlands Ranch subdivision, adjacent to proposed Buchanan Bypass.
- *Woodlands.* Hillside Low Density Residential clusters proposed along Kirker Pass and Nortonville Roads.
- *Southwest Hills.* Proposed Hillside Low and Low Density Residential clusters within the San Marco, Alves Ranch, and Oak Hills South subdivisions. Small Hillside Low Density Residential neighborhood along Bailey Road.

Mitigation Measures

The General Plan contains several policies aimed at minimizing the visual effect of such development, including use of such techniques as clustered lot configuration, natural building materials, limited cut-and-fill of building pads, and natural drainage channels. The proposed General Plan provides the following policies targeted at minimizing the visual impact of new hillside development:

4-P-9 Ensure that new hillside development preserves unique natural features by mapping all natural features as part of development applications, including landforms, mature tree stands, rock outcroppings, creekways, and ridgelines. During development and design review, ensure that site layout is sensitive to such mapped features.

4-P-11 Avoid grading of slopes that are greater than 30 percent. During review of development plans, ensure that necessary grading respects significant natural features and visually blends with adjacent properties.

4-P-14 Preserve natural creekways and drainage courses as close as possible to their natural location and appearance.

4-P-15 Minimize the visual prominence of hillside development by taking advantage of existing site features for screening, such as tree clusters, depressions in topography, setback hillside plateau areas, and other natural features.

4-P-17 Encourage clustering of Hillside Low-Density units in the southern hills, with resulting pockets of open space adjacent to major ridgelines and hillside slopes. Allow density bonuses of 10 percent (maximum) for preservation of 40 percent or more of a project's site area as open space.

4-P-20 As part of the City's Hillside Development Standards, encourage architectural design that reflects the undulating forms of the hillside setting, such as "breaking" buildings and rooflines into several smaller components (see Figure 4-6).

4-P-21 Building forms should be "stepped" to conform to site topography. Encourage use of rooftop terraces and decks atop lower stories.

4-P-22 During development review, ensure that residential rooflines are oriented in the same direction as the natural hillside slope and generally no more than 20 percent steeper than the natural slope contour.

4-P-25 Encourage developers to align and construct streets along natural grades. Minimize visibility of streets from other areas within the City (see Figure 4-7).

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.2-d The General Plan may result in increased public access to the Suisun Bay waterfront from Downtown Commercial Core and local trails/linear parks. *[Beneficial]*

The provision of public access from Downtown commercial activities to the Suisun Bay waterfront will improve the City's character; it will provide access to a unique natural feature in Pittsburg. Implementation of improved connections to the waterfront is considered a *beneficial* impact. Proposed connections to the waterfront under the Pittsburg General Plan include:

- Multi-use path along Marina Boulevard, providing connections from Downtown to shoreline parks and marinas
- Public plaza at terminus of Railroad Avenue, with expanded pedestrian access to shoreline
- New promenade at terminus of Harbor Street, allowing visual access from roadway through new Marina Commercial center to shoreline
- Potential trail along shoreline, east of Downtown, during redevelopment of Industrial sites
- Potential trail along wetlands (potentially along railway corridor), west of Downtown to Stake Point

The General Plan proposes visual and physical access to the waterfront through redevelopment of the small plaza at the terminus of Railroad Ave, and construction of a marine commercial center (with green promenade providing pedestrian connection to the shore) at the terminus of Harbor Blvd. Proposed General Plan policies targeted at improving access from Downtown to the Suisun Bay waterfront include:

5-P-18 Pursue the dedication of public open space during the redevelopment of infill sites within the Downtown, particularly adjacent to the waterfront area.

5-P-25 Continue streetscape beautification efforts within the Downtown, focusing on improving the visual connection between the Commercial Core and the waterfront.

5-P-39 Pursue acquisition of the Railroad Avenue terminus by transferring existing private recreation facilities due west of the adjacent Medium Density Residential neighborhood. Redesign the public plaza to ensure that both visual and physical access from Downtown is achieved.

5-P-40 Encourage design of the Harbor Street terminus to provide an unobstructed view of New York Slough and a 30-ft wide promenade to the waterfront. This linear park/promenade should function as a public square, with buildings oriented toward it and pedestrian amenities leading from East Third Street to the shoreline.

5-P-41 Improve the pedestrian path along Marina Boulevard, connecting the Downtown core to the waterfront/marina area. Provide a wide path right-of-way, way-finding signage, landscaping, interpretive plaques, and street lighting.

5-P-48 Develop a bikeway along the Downtown waterfront from Central Harbor Park to the proposed Marine Commercial Center, adjacent to the proposed Marina Boulevard pedestrian path.

Mitigation Measures

Mitigation of the above impact is not necessary, as implementation of the above policies render it beneficial.

Impact 4.2-e Increased residential densities and mixed-use development may be incongruous with existing Downtown character. *[Less than significant]*

The New York Landing Historical District in Downtown is intended to preserve the historical features of local structures. Many of the commercial structures within Downtown contribute to the sense of character within the district. The General Plan allows redevelopment and intensification of Downtown structures into mixed-use buildings, which may potentially affect the scale and character of the City's historic core. However, intensification of Downtown structures at the risk of historical character is considered a *less than significant* impact.

Potential changes that could affect Downtown character during buildout of the proposed General Plan include:

- Increased FAR allowances, building area, height limitations, and residential densities for mixed-use Downtown Commercial structures along Railroad Avenue.
- Increased residential densities and requirements for large-scale multi-family projects in the redevelopment of neighborhoods along West Tenth Street.
- New Marine Commercial complex along the waterfront at the terminus of Harbor Street, to replace existing heavy industrial uses.

Within the General Plan timeframe, the City plans to complete a tear down/rebuild housing project within the West Tenth Street Neighborhoods. The Downtown's historical flavor may be compromised unless high quality site design and building materials are used. Redevelopment of large housing projects must retain the historical grid street network with homes and porches lining the sidewalk.

Mitigation Measures

The General Plan contains policies ensuring that architectural detailing, building heights, and massing be considered during redevelopment. Development of new mixed-use structures within Downtown must also be sensitive to the scale of older, pedestrian-oriented structures.

The proposed General Plan provides policies targeted at ensuring Downtown's historical character is preserved:

5-P-2 Emphasize Downtown as Pittsburg's historic center, providing an identity and a sense of place for the entire city by establishing a focused revitalization strategy that integrates the initiatives of the Economic Development Strategy.

5-P-26 Encourage the repetition of key historical architectural features—such as windows and displays, cornice details, and roofline/pitch elements—in the redevelopment of commercial structures in Downtown.

5-P-28 Ensure that new construction and remodeling throughout Downtown (including the New York Landing Historical District) are reviewed for design compatibility by the Planning Commission and Historical Resources Commission.

5-P-33 During redevelopment of the West Tenth Street Neighborhoods, require that the grid street network and pedestrian connections be maintained.

5-P-35 Retain existing pedestrian-scale lampposts and amenities along sidewalks within Downtown.

5-P-38 Encourage developers to orient exterior design elements of Commercial Core structures toward pedestrians (for example: large display windows on street frontage; weather coverings over entryways), and extend the historical flavor of architectural features within the New York Landing Historical District to the intersection of Railroad Avenue and Tenth Street.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.3 TRANSPORTATION

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding transportation, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 5: Transportation (June 1998), available from the Pittsburg Community Development Department.

Pittsburg's transportation system consists of streets, highways, regional rail, and public transportation, as well as alternative modes including carpooling, bicycling, and walking. Waterborne transportation in the form of commercial shipping occurs at the deep-water port in the Northeast River industrial area. Several routes of regional significance provide access to Pittsburg: State Route 4, Pittsburg-Antioch Highway, Kirker Pass Road, Bailey Road, Leland Road, and Willow Pass Road. State Route 4, which runs east-west and bisects the City, connects Highway 160 in East Antioch, Highway 242 and I-680 in Concord, and I-80 in Hercules. A system of surface streets collects and distributes traffic to and from the highway and regional routes, and between commercial, industrial, and residential areas of the City. The existing and planned roadway system for Pittsburg is shown in Figure 4.3-1.

Bay Area Rapid Transit (BART) provides commuter rail service between Pittsburg and the rest of the Bay Area via the Pittsburg/Bay Point line. The Pittsburg/Bay Point BART Station is located at the southwest quadrant of the State Route 4/Bailey Road interchange. Local bus service is provided by Tri-Delta transit and the County Connection services. Opportunities for future transit service include the proposed BART extension to Railroad Avenue.

Existing bicycle lanes along East Leland Road, Harbor Street, Buchanan Road, and Willow Pass Road provide access throughout Pittsburg. The Delta De Anza Trail is a multi-use path connecting Pittsburg to neighboring communities. Proposed bicycle facilities include West Leland Road, Range Road, proposed San Marco Boulevard, and the PG&E utility right-of-way.

Mode Split and Commute Patterns

Pittsburg residents and employees use a variety of modes for travel. 1990 U.S. Census data concludes that most Pittsburg residents drive alone to work (73 percent), but with a large share of carpools and vanpools (20 percent). Public transit use for residents of Pittsburg was also low, at 5 percent. Of the workers traveling to jobs in Pittsburg in 1990, the vast majority used single-occupant vehicles (82 percent), compared to transit (1 percent). A slightly higher proportion of Pittsburg residents (17 percent) commuted to jobs in Concord than to destinations within the City (16 percent) in 1990. Other principal work destinations for Pittsburg residents included San Francisco, Walnut Creek, Antioch, and Oakland.

Existing Traffic Volumes

Traffic data used to define existing roadway and intersection service levels include average daily traffic (ADT) and peak hour traffic. The ADT is defined as the total number of vehicles passing a point on a roadway, in both directions, on an average weekday. Peak hour is defined as the total number of vehicles passing a point on a roadway during the busiest one hour in the morning or afternoon on an average weekday. Typically, peak hour turning movement volumes are used to measure service levels at intersections.

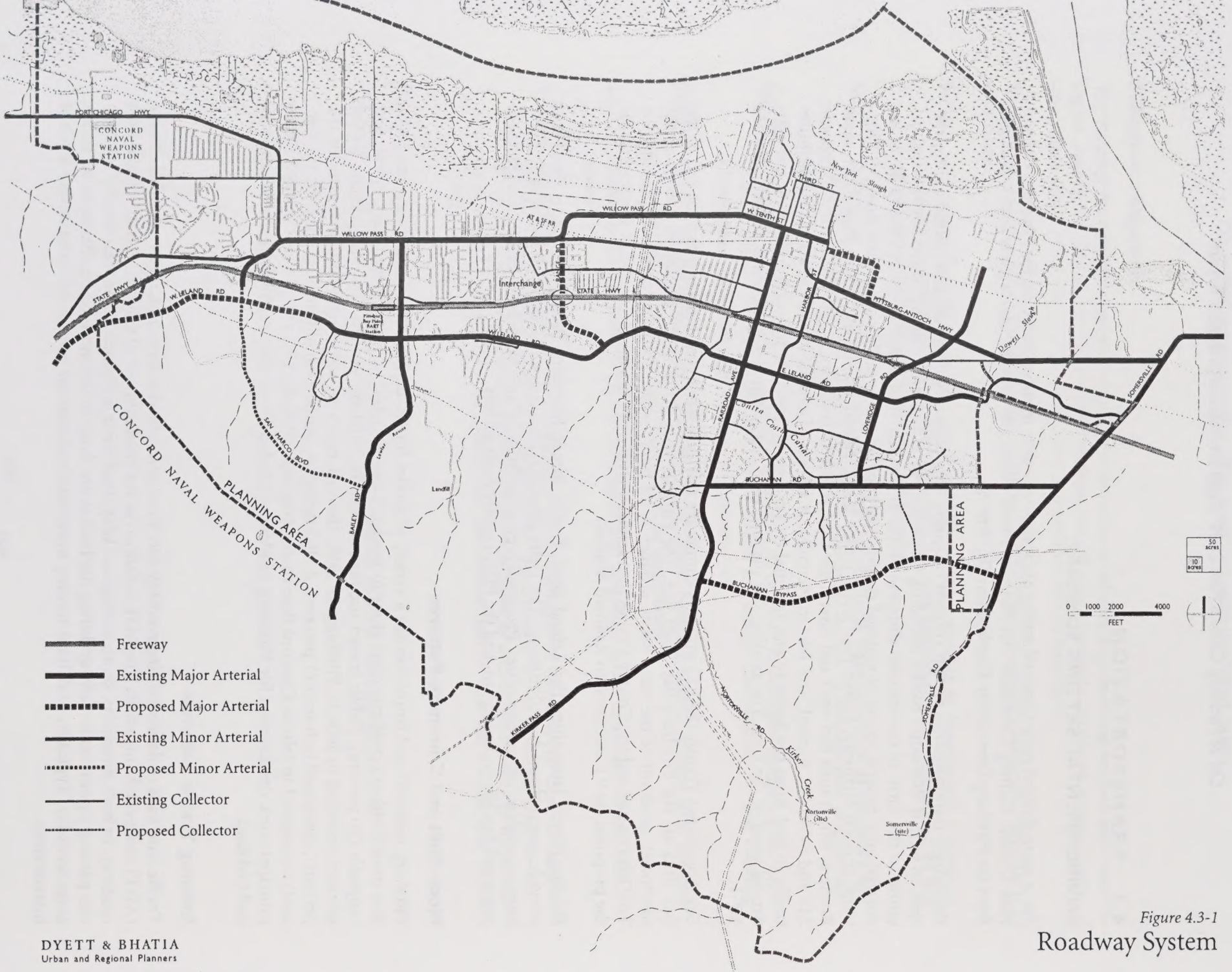


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Figure 4.3-1
Roadway System

Historically, State Route 4 has been heavily congested in the westbound direction during the weekday morning peak period (7:00 to 9:00 AM) and in the eastbound direction during the evening peak period (4:00 to 6:00 PM). The highly directional peak hours are the result of significantly more housing than employment in East County communities. Based on Caltrans' mainline counts, volumes on State Route 4 range from nearly 80,000 to over 90,000 vehicles per day in the vicinity of Pittsburg. Weekday volumes generally peak between 5:00 to 6:00 PM, with peak hour traffic volumes at nearly 8,000 vehicles per hour. Traffic on State Route 4 has increased significantly over the past 10 years, about 48 percent, as continued housing construction occurs in Antioch and Brentwood.

Along City streets, traffic volumes have also increased over the past 10 years. Traffic volumes along the major arterials in Pittsburg have experienced significant increases due to current congestion levels on State Route 4, with many drivers finding alternative access along local streets to avoid the congestion. Pittsburg experiences substantial through-traffic on local arterials and collectors as commuters from adjacent communities use these streets to access Kirker Pass Road, a regional connection to Concord, Walnut Creek and the Highway 24/I-680 junction. Railroad Avenue, Buchanan Road, and Leland Road accommodate the greatest amounts of through traffic in Pittsburg.

The operations of roadways and intersections are described with the term *level of service.* Level of service (LOS) is a qualitative description ranging from Level A, or free flow operations with little or no delay, to Level F, or over-saturated conditions with excessive delays. LOS E represents conditions that border on the capacity of a roadway or intersection. The peak hour is used for analysis purposes because it represents the period during the day when traffic levels are at their highest and capacity constraints are most noticeable. Table 4.3-1 presents afternoon peak hour service levels at intersections throughout the City; afternoon peak hour counts are used because they are the highest traffic volumes throughout the day.

Transit Services

Tri-Delta Transit serves Eastern Contra Costa County, including the cities of Pittsburg, Antioch, Oakley, Brentwood, and the unincorporated areas of the County. All buses have bicycle racks and are lift equipped. Existing and planned transit service are provided in Figure 4.3-2.

Within Pittsburg, Tri-Delta Transit operates seven bus routes. Tri-Delta bus routes serve areas north, south, and east of Pittsburg. The primary lines serving Pittsburg carry approximately 3,400 passengers per day. The County Connection transit service, operated by the Contra Costa County Transit Authority, serves most Contra Costa County cities with limited service to East County areas. County Connection operates Line 930 through Pittsburg, which originates in Walnut Creek and travels on Ygnacio Valley Road/Kirker Pass Road to Buchanan Road. In terms of productivity, Route 930 serving Pittsburg has consistently fallen below CCCTA's productivity thresholds, resulting in service reductions in 1997.

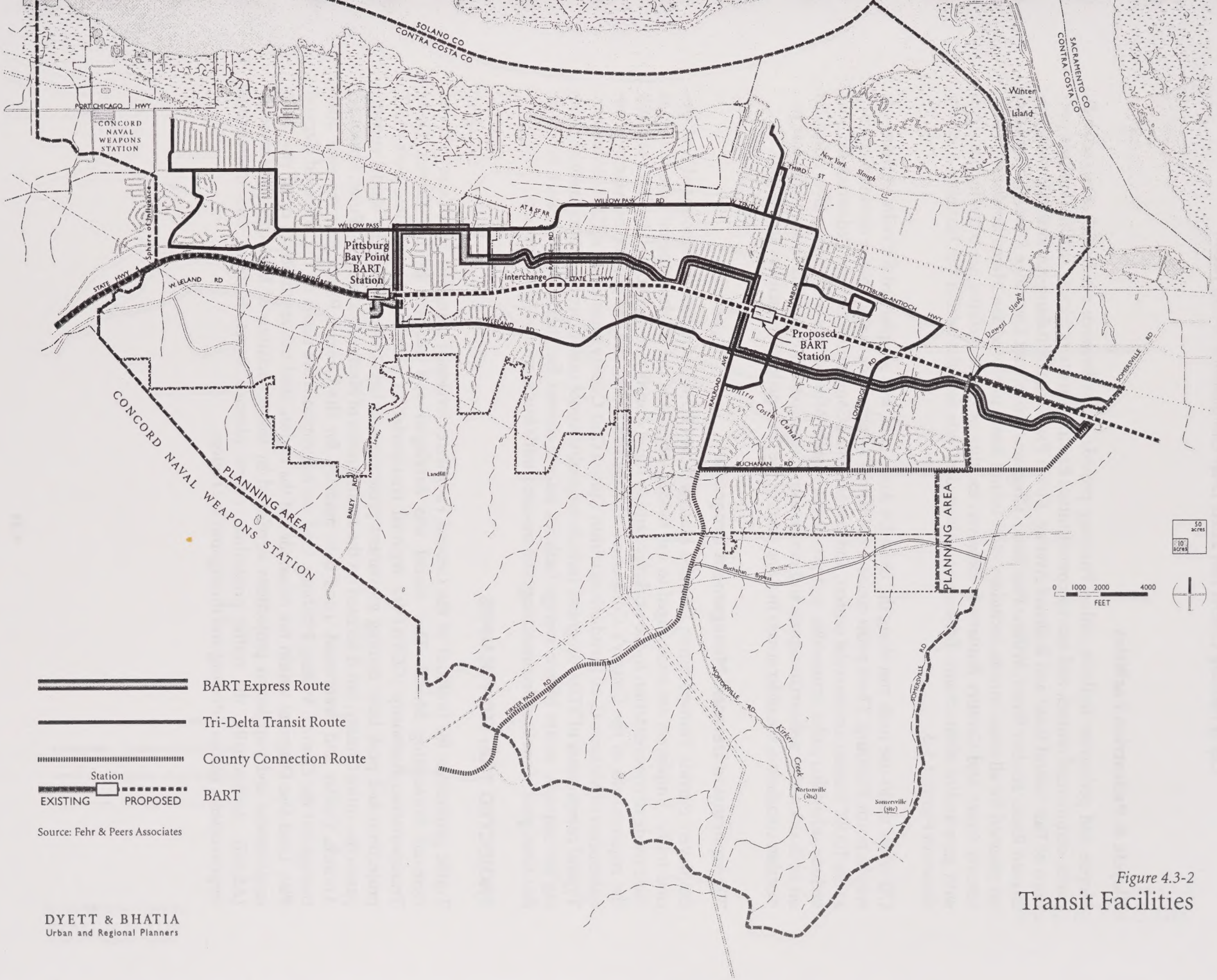
The Bay Area Rapid Transit (BART) is a regional commuter-rail system. The Pittsburg/Bay Point BART Station is located at the southwest quadrant of the State Route 4/Bailey Road interchange. On a typical weekday, 75 trains provide round trip service between the Pittsburg/Bay Point station and other regional destinations. The Pittsburg/Bay Point line had an average weekday ridership of approximately 7,200 passengers in 1997, an increase of 23 percent since the station opened in 1996. BART projects ridership at this station will grow 6 percent annually to the year 2005. BART also provides express bus service between the Pittsburg/Bay Point station, Antioch and Brentwood (Routes PE and PE1).

Table 4.3-1
Intersection Level Of Service @ PM Peak Hour: 1997, City of Pittsburg

Intersection	Volume to Capacity Ratio	Level of Service
1. West Leland/BART Entrance	0.18	A
2. Bailey/State Route 4 Westbound Ramps	0.58	A
3. Bailey/State Route 4 Eastbound Ramps	0.90	D
4. Bailey/West Leland	0.55	A
5. Willow Pass/Range WB Ramps[1]	0.10	A
6. Willow Pass/Range EB Ramps[1]	4.80	A
7. West Leland/Range	0.39	A
8. West Leland/Crestview	0.40	A
9. Railroad/East 3rd [1]	1.70	A
10. Railroad/East 10th	0.39	A
11. Railroad/Central	0.34	A
12. Railroad/Civic/Oak	0.30	A
13. Railroad/California	0.54	A
14. Railroad/State Route 4 Eastbound Ramps	0.63	B
15. Railroad/West Leland	0.72	C
16. Railroad/Yosemite	0.40	A
17. Railroad/Buchanan	0.68	B
18. Solari/Central[1]	7.10	B
19. Harbor/Central[1]	--	F
20. Harbor/School	0.26	A
21. Harbor/California	0.53	A
22. Harbor/West Leland	0.66	B
23. Harbor/Buchanan	0.77	C
24. California/State Route 4 Westbound Ramps	0.67	B
25. Loveridge/Pittsburg-Antioch Hwy	0.87	D
26. Loveridge/California	0.50	A
27. Loveridge/State Route 4 Eastbound Ramps	0.66	B
28. Loveridge/East Leland	0.63	B
29. Loveridge/Buchanan	0.69	B
30. East Leland/Century	0.50	A
31. Somersville/Century	0.45	A

1 Unsignalized intersections, either all-way or two-way stop controlled. Values shown represent total intersection delay in seconds/vehicle.

Source: Fehr & Peers Associates



Source: Fehr & Peers Associates

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Figure 4.3-2
Transit Facilities

Bicycle & Pedestrian Facilities

Bicycle and pedestrian facilities within Pittsburg provide access between residential areas, schools, parks, commercial centers, and nearby communities. Existing on-street bicycle facilities include portions of East Leland Road and Railroad Avenue, Kirker Pass Road, Pittsburg-Antioch Highway, Buchanan Road, Harbor Street, Willow Pass Road, Crestview Drive, and Loveridge Road. Bicycle lanes are planned for all major streets, including West Leland Road, proposed San Marco Boulevard, Montezuma Street, and Century Boulevard. However, existing on-street facilities are often inconsistent, with gaps and/or obstructions. Existing and planned bicycle facilities within the Planning Area are shown in Figure 4.3-3.

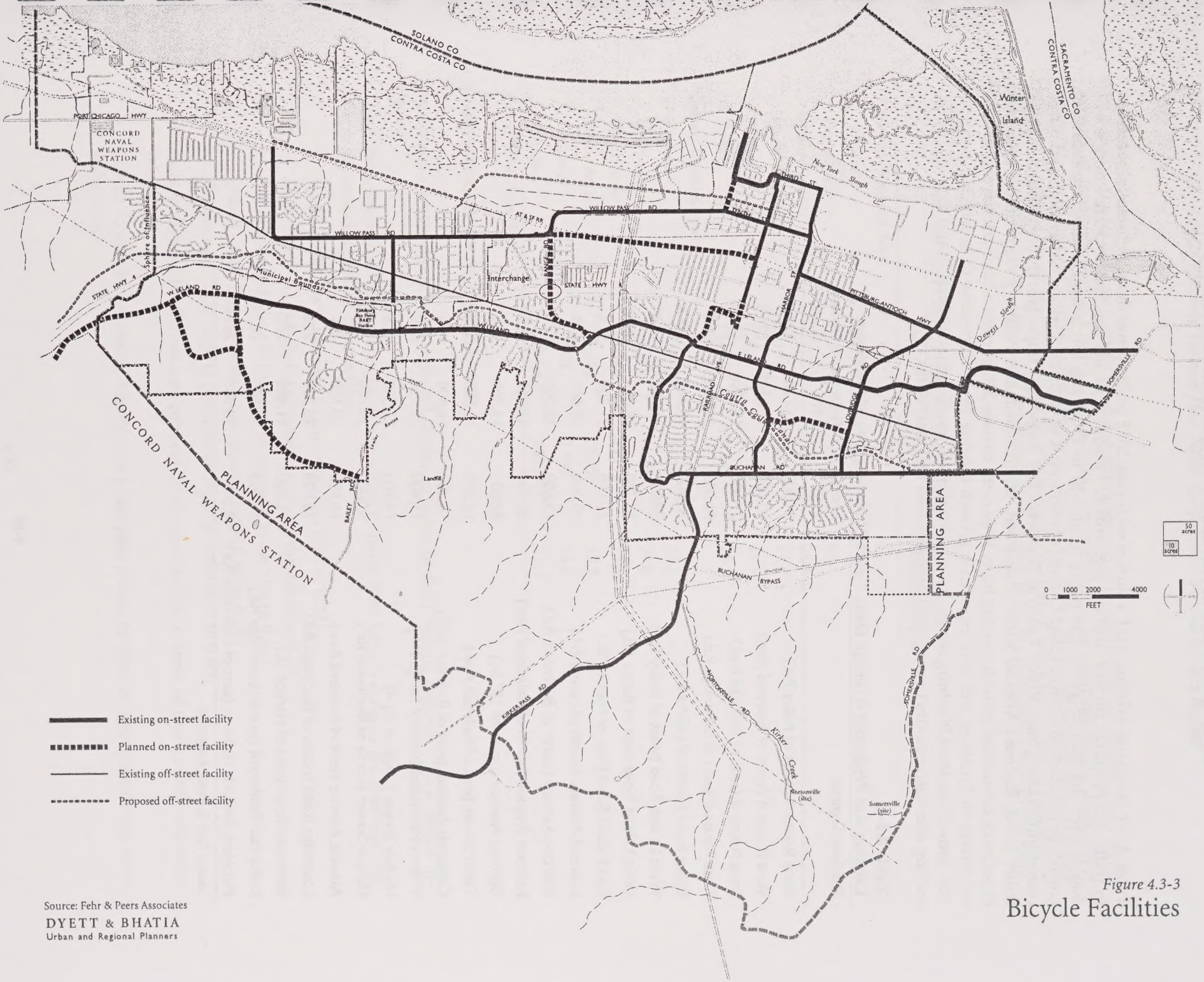
Off-street multi-use trails run along the Delta De Anza Trail, and are planned for railroad rights-of-way in north Pittsburg. These paths connect residential neighborhoods with major destinations such as the BART Station, commercial centers, and Los Medanos Community College. Pedestrian facilities include sidewalks, paths, crosswalks, and pedestrian signals. Most streets in Pittsburg have sidewalks on both sides, and pedestrian signals and crosswalks at signalized intersections to accommodate pedestrian circulation. On older streets in some parts of the City, pedestrian facilities are sporadic.

Transportation Demand Management Programs

Employers provide Transportation Demand Management (TDM) to reduce the amount of peak period traffic. Employees are encouraged to use modes other than the single-occupant automobile as their mode of transportation to the workplace and to travel during non-peak times. In order to fulfill the requirements of the County's Congestion Management Plan, and the growth management requirements of Measure C, all jurisdictions within Contra Cost County must adopt a TDM Ordinance. Typical components of TDM programs include carpool/vanpool match programs, preferential parking for carpools, secure bicycle storage facilities, on-site shower facilities, staggered work hours or flex-time, provisions for telecommuting, and on-site shuttle bus service to BART stations.

PROJECTED TRAFFIC VOLUMES

Traffic projections for buildout of the General Plan were developed using the East County Travel Demand Forecasting Model. This model was developed and adopted by the Contra Costa Transportation Authority (CCTA) for regional transportation planning. It produces both ADT projections and peak hour turning movement projections at key intersections. The model encompasses the entire County, but is focused on the communities of North Concord, Bay Point, Pittsburg, Antioch, Oakley and Brentwood. Land uses modeled for the General Plan reflect the year 2025 throughout the County. Within Pittsburg, land use assumptions are based on the proposed General Plan Land Use Diagram; within the remainder of the region, land use assumptions equal year 2025 employment and population projections developed by the Association of Bay Area Governments (ABAG). Additionally, the traffic projections reflect planned street, highway and interchange improvements within Pittsburg and throughout the region.



Source: Fehr & Peers Associates

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Figure 4.3-3
Bicycle Facilities

Table 4.3-2 compares existing ADT volumes with year 2025 traffic projections. Substantial increases in traffic are projected for key roadway segments in Pittsburg. Traffic volumes on State Route 4 will double over the next 25 years, due partly to growth in Pittsburg, but primarily due to substantial growth in the Eastern Contra Costa County communities of Antioch, Oakley, Brentwood, and other communities along State Route 4 such as Discovery Bay. Regionally important through routes such as Bailey Road, Railroad Avenue/ Kirker Pass Road, Leland Road, and Pittsburg-Antioch Highway will experience substantial growth ranging from 35 percent to over 200 percent. Other arterial and collector streets in Pittsburg will also experience growth ranging from 15 percent to nearly 300 percent. This growth on local Pittsburg streets is a combination of locally-generated traffic and through traffic seeking alternative routes to congested highways and regional routes.

Table 4.3-2
Existing and Projected Average Daily Traffic Volumes, City of Pittsburg

Roadway Segment	*Existing 1997*	*Projected 2025*	*Percent Change*
State Route 4 (west of Bailey Rd.)	94,000	172,200	83%
State Route 4 (west of Railroad Ave.)	80,000	164,500	106%
State Route 4 (east of Railroad Ave.)	77,000	155,000	101%
State Route 4 (east of Loveridge Rd.)	81,000	161,000	99%
Bailey Road (north of Leland Rd.)	20,300	48,300	138%
West Leland Road (west of Bailey Rd.)	8,600	21,700	152%
West Leland Road (east of Range Rd.)	13,700	24,600	80%
East Leland Road (east of Harbor St.)	21,100	31,800	51%
Railroad Avenue (north of Leland Rd.)	30,000	40,600	35%
Railroad Avenue (north of Buchanan Rd.)	15,600	25,200	62%
Railroad Avenue (north of California Ave.)	30,000	49,800	66%
Railroad Avenue (north of 10th St.)	9,900	13,500	36%
Tenth Street (east of Railroad Ave.)	12,500	16,500	32%
California Avenue (east of Railroad Ave.)	14,200	16,400	15%
Willow Pass Road (west of Range Rd.)	13,900	23,100	66%
Harbor Street (south of SR 4)	14,200	32,000	125%
Harbor Street (north of Buchanan Rd.)	5,200	20,700	298%
Atlantic Avenue (east of Railroad Ave.)	10,900	10,100	-7%
Loveridge Road (north of Buchanan Rd.)	16,600	20,200	22%
Buchanan Road (east of Harbor St.)	16,800	11,400	68%
Delta-Fair Boulevard (east of Loveridge Rd.)	14,800	35,500	140%
Pittsburg Antioch Highway (east of Loveridge Rd.)	9,500	28,900	204%

Source: Fehr & Peers Associates

According to the CCTA East County Model used to generate projected traffic volumes for year 2025, increases in freeway traffic in Contra Costa County are expected to be most substantial along State Route 4 in the vicinity of Pittsburg and Antioch. Table 4.3-3 shows Projected vehicle miles traveled (VMT) and vehicle hours traveled (VHT) for Pittsburg and Contra Costa County under buildout of the proposed General Plan. Total VMT are expected to exceed 18,2500 on roadways within the Planning Area.

Table 4.3-3
Projected VMT and VHT: 2025, Pittsburg and Contra Costa County

Type	*VMT*	*VHT*	*Average MPH*
Pittsburg Planning Area			
Highway	96,369	3,957	24.4
Expressway	13,774	329	41.9
Major Arterial	62,755	2,354	26.7
Minor Arterial	8,119	516	15.7
Collector	1,503	87	17.3
Totals	**182,521**	**7,243**	**25.2**
Contra Costa County			
Highway	1,167,115	44,591	26.2
Expressway	190,235	9,150	20.8
Major Arterial	763,389	33,770	22.6
Minor Arterial	345,695	18,302	18.9
Collector	57,994	3,493	16.6
Totals	**2,524,429**	**109,307**	**23.1**

Source: Fehr & Peers, 2000.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Peak hour levels of service (LOS) exceeding General Plan LOS standards for roadway segments and signalized intersections:
  - Rural - LOS low C (volume to capacity ratio 0.70 to 0.74)
  - Semi-Rural - LOS high C (volume to capacity ratio 0.75 to 0.79)
  - Suburban - LOS low D (volume to capacity ratio 0.80 to 0.84)
  - Urban - LOS high D (volume to capacity ratio 0.85 to 0.89)
  - Downtown - LOS high D (volume to capacity ratio 0.85 to 0.89)
- Failure to provide efficient and convenient transit services in areas of new growth and redevelopment; or
- Failure to provide accessible bicycle and pedestrian routes in areas of new growth and redevelopment.

ANALYSIS OF IMPACTS

Impact 4.3-a New urban development may result in increased traffic exceeding Level of Service (LOS) standards for roadway segments and signalized intersections. *[Significant]*

The effects of the proposed General Plan are measured by applying trip generation rates to the various approved and proposed land use developments allowed under the Land Use Diagram. New residential development is planned for the South Hills area, while new Business and Regional Commercial centers are planned along State Route 4. Such development will contribute significant daily trips to local arterials and highways. Traffic exceeding LOS standards for roadways and intersections is considered a *significant* impact. The existing and planned roadway system in Pittsburg is shown in Figure 4.3-1.

Congested conditions are projected to occur at locations where volume exceeds the thresholds for suburban, urban, and downtown areas, as described above. Based on the existing roadway system, without the street improvements proposed in the General Plan, the following roadways would be impacted:

- State Route 4;
- Pittsburg-Antioch Highway;
- Railroad Avenue;
- Leland Road;
- Loveridge Road;
- Willow Pass Road;
- Bailey Road;
- Buchanan Road; and
- Harbor Street.

In addition to roadways, traffic congestion is projected to occur at intersections where volume exceeds thresholds for suburban, urban, and downtown areas, as described above. Table 4.3-4 presents projections for year 2025 PM peak hour intersection service levels, and comparisons with LOS standards. *Appendix A* identifies those intersections that would be impacted, based on the existing roadway system, without the street improvements proposed in the General Plan:

- Bailey Road @ West Leland Road;
- Range Road @ Willow Pass Road Eastbound Ramps (unsignalized);
- Railroad Avenue @ Central Avenue;
- Solari Avenue @ Central Avenue;
- Harbor Street @ East Leland Road;
- Harbor Street @ Buchanan Road;
- Loveridge Road @ Pittsburg-Antioch Highway
- Loveridge Road @ California Avenue;

- Loveridge Road @ East Leland Road; and
- Century Boulevard @ East Land Road/Delta Fair Boulevard.

Table 4.3-4
PM Peak Hour Intersection Service Levels: 2025, City of Pittsburg

		PM Peak Hour		
Intersection		*Standard*	*V/C Ratio*	*LOS*
1	West Leland/BART Entrance	0.89	0.51	A
2	Bailey/Route 4 WB Ramps	0.89	0.76	C
3	Bailey/Route 4 EB Ramps	0.89	0.84	D
4	Bailey/West Leland	0.89	**>1.00**	**F**
5	Range/Willow Pass WB	0.84	0.0[1]	A
6	Range/Willow Pass EB	0.84	**>45**[1]	F
7	Range/Leland	0.84	0.59	A
8	Crestview/Leland	0.84	0.67	B
9	Railroad/Third	0.94	0.45	A
10	Railroad/Tenth	0.94	0.76	C
11	Railroad/Central	0.94	**>1.00**	**F**
12	Railroad/Civic-Oak	0.89	0.57	A
13	Railroad/California-Route 4 WB Ramps	0.89	0.87	D
14	Railroad/Route 4 EB Ramps	0.89	0.87	D
15	Railroad/Leland	0.89	0.87	D
16	Railroad/Yosemite	0.84	0.24	A
17	Railroad/Buchanan	0.84	0.55	A
18	Solari/Central	0.89	**>45**[1]	**F**
19	Harbor/Central	0.89	0.62	B
20	Harbor/California	0.89	0.87	D
21	Harbor/Leland	0.89	**0.94**	**E**
22	Harbor/Buchanan	0.89	**1.00**	**E**
23	California/Route 4 WB Ramps	0.89	0.88	D
24	Loveridge/Pittsburg-Antioch Highway	0.84	**>1.00**	**F**
25	Loveridge/California	0.89	**0.96**	**E**
26	Loveridge/Route 4 EB Ramps	0.89	0.81	D
27	Loveridge/Leland	0.89	**0.93**	**E**
28	Loveridge/Buchanan	0.84	0.76	C
29	Century/Leland-Delta	0.84	**>1.00**	**F**
30	Somersville/Century	0.84	0.81	D

1 Unsignalized intersections, value reported is total delay (seconds/vehicle) based on HCM methodology (1994).

Source: Fehr & Peers Associates, July 2000.

Table 4.3-5 shows projected LOS at various intersections within the City by year 2025, as compared to mitigated LOS resulting from the transportation improvements recommended in *Appendix A*. The Range Road/Willow Pass Road Eastbound Ramps and Solari Avenue/Central Avenue intersections, both projected to decline to LOS F, can be mitigated to LOS C.

Table 4.3-5
Projected PM Peak Hour Intersection Service Levels: 2025, City of Pittsburg

Intersection	Standard	PM Peak Hour V/C Ratio	LOS	Mitigated LOS
Bailey/West Leland	0.89	>1.00	F	0.98/E
Range/Willow Pass Eastbound Ramps	0.84	>45[1]	**F**	**0.74/C**
Railroad/Central	0.94	>1.00	F	0.88/D
Solari/Central	0.89	>45[1]	**F**	**0.75/C**
Harbor/Leland	0.89	0.94	E	0.81/D
Harbor/Buchanan	0.89	1.00	E	0.89/D
Loveridge/Pittsburg-Antioch Highway	0.84	>1.00	F	0.85/D
Loveridge/California	0.89	0.96	E	0.90/D
Loveridge/Leland	0.89	0.93	E	0.84/D
Century/Leland-Delta	0.84	>1.00	F	0.82/D

1 Unsignalized intersections, value reported is total delay (seconds/vehicle) based on HCM methodology (1994).

Source: Fehr & Peers Associates, July 2000.

Mitigation Measures

Appendix A identifies PM peak hour volumes and LOS at 30 intersections within Pittsburg, as well as proposed lane configuration improvements. General Plan provides policies targeted at maintaining appropriate LOS for City roadways and intersections:

7-G-1 Adopt local intersection service level standards that conform to CCTA's Growth Management requirements for Routes of Regional Significance at signalized intersections. Define intersections within Pittsburg city limits as being located in rural, semi-rural, suburban, urban, or central business district areas, as designated in Figure 7-2.

- Rural—LOS low C (volume to capacity ratio 0.70 to 0.74)
- Semi-Rural—LOS high C (volume to capacity ratio 0.75 to 0.79)
- Suburban—LOS low D (volume to capacity ratio 0.80 to 0.84)
- Urban—LOS high D (volume to capacity ratio 0.85 to 0.89)
- Downtown—LOS high D (volume to capacity ratio 0.85 to 0.89)

7-P-6 Design roadway improvements and evaluate development proposals based on LOS standards prescribed in Policy 7-G-1.

7-P-7 Implement Transportation Element improvements prior to deterioration in levels of service below those prescribed in Policy 7-G-1.

7-P-8 Improve intersections as needed to maintain safety on major roadways and traffic levels of service, as described in Policy 7-G-1.

7-P-11 Maximize the carrying capacity of arterial roadways by controlling the number of intersections and driveways, minimizing residential access, implementing Transportation Systems Management (TSM) measures, and requiring sufficient on-site parking to meet the needs of each project (see also Table 7-1).

7-P-12 Continue to collect fees, plan and design for the future construction of Buchanan Bypass following a feasibility and environmental impact study to determine the precise alignment, costs, mitigation measures, and impacts on adjacent uses.

7-P-14 Increase access to alternative north-south routes providing connection to State Route 4, other than Railroad Avenue.

7-P-15 Support Caltrans' planned improvements to the Railroad Avenue and Loveridge Road interchanges in conjunction with State Route 4 widening projects. Work with Federal, State and regional authorities to ensure timely completion of these projects needed to adequately serve local circulation needs.

7-P-16 Continue to collect fees for the extension of West Leland Road to Willow Pass Road. Require new development adjacent to the extension to dedicate right-of-way and construct or fund new intersections and frontage improvements.

7-P-17 Pursue the design and construction of an interchange/overpass at State Route 4 and Range Road. Work with Caltrans to design an interchange facility that will accommodate future traffic demands.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level for roadways. Implementation of the intersection improvements above will reduce the impact to a less-than-significant level for all but three intersections. The intersections of Bailey/West Leland, Loveridge/Pittsburg-Antioch Highway, and Loveridge/California cannot be feasibly mitigated to achieve service level standards. This is considered a significant unavoidable impact.

Impact 4.3-b New urban development and intensification of existing areas may result in increased needs for transit services not available through existing transit services and facilities. *[Potentially significant]*

Redevelopment of the Downtown housing stock, as well as new neighborhood development in the western portions of the City, may increase the need for local bus service. New business commercial clusters and redeveloped industrial uses throughout the City and adjacent communities will likely result in increased job opportunities, and therefore higher levels of transit commuters. This increased need for transit services is considered a *potentially significant* impact. Existing and planned transit service are provided in Figure 4.3-2.

Existing transit services provide routes along Willow Pass Road, Railroad Avenue, Harbor Street, Leland Road, Loveridge Road, and Buchanan Road. However, increased transit demands that may result under buildout of the proposed General Plan include:

- *Downtown.* Downtown Commercial core and Suisun Bay waterfront area, and Downtown High Density Residential neighborhoods along West Tenth Street.
- *Proposed Railroad Avenue BART Station Area.* Mixed-use Community and Business Commercial activities/employers.
- *Pittsburg/Bay Point BART Station Area.* Mixed-use Community and Business Commercial activities/employers, and High Density Residential developments.
- *Proposed San Marco Village.* Mixed-use Community Commercial district.

Mitigation Measures

The General Plan proposes significant improvements in transit accessibility, particularly during (re)development of Business Commercial centers. Additionally, the proposed BART extension to Railroad Avenue will provide current residents with more convenient access to the regional rail system.

Proposed General Plan policies targeted at providing adequate transit services and facilities include:

7-P-26 Require mitigation for development proposals which increase transit demand above the service levels provided by public transit operators and agencies.

7-P-27 Support the expansion of the existing transit service area and an increase in the service levels of existing transit. Support increased Tri-Delta and County Connection express bus service to the Pittsburg/Bay Point BART Station to reduce traffic demand on State Route 4.

7-P-28 Encourage the extension of BART to Railroad Avenue within the median of State Route 4. Cooperate with BART and regional agencies to develop station area plans and transit-oriented development patterns.

7-P-29 Preserve options for future transit use when designing improvements for roadways. Ensure that developers provide bus turnouts and/or shelters, where appropriate, as part of projects.

7-P-30 Work with Tri-Delta and planning area residents to plan for local bus routes that more effectively serve potential riders within local neighborhoods.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.3-c New urban development may create additional demand for pedestrian and bicycle connections and facilities. *[Potentially significant]*

Pedestrian and bicycle connections are important components of mobility. Increased residential and employment populations, in conjunction with expanded transit opportunities, will create additional need for multi-use connections between local activity centers. This need for additional pedestrian and bicycle facilities is considered a *potentially significant* impact. Existing and planned bicycle facilities within the Planning Area are shown in Figure 4.3-3.

New development will likely result in need for increased pedestrian and bicycle facilities in the following areas:

- *Downtown.* Downtown Commercial core and Suisun Bay waterfront area, and Downtown High Density Residential neighborhoods.
- *Railroad Avenue.* Civic Center, City Park, and Pittsburg High School north of State Route 4, and Community Commercial activities south of State Route 4.
- *Proposed Railroad Avenue BART Station Area.* Mixed-use Community and Business Commercial activities/employers.
- *Stoneman Park.* Recreational facilities, including the Golf Course, along West Leland Road.
- *Pittsburg/Bay Point BART Station Area.* Mixed-use Community and Business Commercial activities/employers, and High Density Residential developments
- *Proposed San Marco Village.* Mixed-use Community Commercial district.

Many of the above proposed connections are located within areas not yet developed or with redevelopment potential. In many parts of the City, new connections between neighborhoods are not feasible because they are primarily built-out.

Mitigation Measures

The General Plan responds to these demands by proposing several new trails along existing linear corridors. Multi-use trails are planned for several creek corridors and utility rights-of-way throughout the City, including Kirker Creek and the PG&E powerline corridor. Additionally, new bicycle lanes are planned for most of the major and minor arterial roadways within Pittsburg. These pathways are intended to provide residents and employees with connections between neighborhoods, schools (including Los Medanos Community College), parks and recreation facilities, business clusters, commercial centers, and civic uses.

The proposed General Plan provides the following policies targeted at improving the local pedestrian and bicycle path network:

7-P-32 Require mitigation for development proposals which result in potential conflicts, or fail to provide adequate access, for pedestrians and bicycles.

7-P-33 As part of development approval, ensure that safe and contiguous routes for pedestrians and bicyclists are provided within new development projects.

7-P-37 Develop a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with City and County open space areas.

7-P-39 Ensure provision of sufficiently wide sidewalks and pedestrian paths in all new residential development. Ensure the provision of multi-use trails or trailheads within new hillside developments, preferably connecting to the regional trail network.

7-P-41 Modify the City's Engineering Design Standards to require installation of median refuges at heavily used pedestrian crossings (minimum six feet wide) on arterial streets with four or more travel lanes, where roadway width allows.

7-P-42 Provide adequate roadway width dedications for bicycle lanes, paths, and routes as designated in Figure 7-4.

7-P-46 Develop a multi-use bicycle path (approx. 2.5 miles) along the abandoned railroad tracks north of Willow Pass Road, providing linkage between Downtown and the Stake Point/Marina area.

7-P-48 Pursue construction of a bicycle path connecting Railroad Avenue to North Parkside Drive through City Park. Include appropriate signage and storage facilities.

7-P-50 Consider redesigning the Railroad Avenue linear park to accommodate bicycles. Ensure that future greenways throughout the City—such as the proposed West Leland Road linear park—contain multi-use paths.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.4 AIR QUALITY

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding air quality, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 14: Air Quality (June 1998), available from the Pittsburg Community Development Department.

Three types of air pollutants affect air quality in Pittsburg – criteria air pollutants, toxic air contaminants, and odors and nuisances. The City's ability to regulate the pollutants is preempted by State and regional regulations. Toxic air contaminants are controlled by the Bay Area Air Quality Management District (BAAQMD). The City has a more direct role in regulating odors and nuisances, and the release of particulate matter at construction sites.

The Bay Area's air quality is influenced largely by motor vehicle use. Automobile ownership and use are increasing at faster rates than population growth. However, the trend towards a newer, cleaner vehicle mix will serve to counteract some of the negative air quality impacts associated with increased vehicle use. Overall, a net reduction in the emissions of ozone precursors and carbon monoxide is expected, while particulate matter emissions are expected to increase into the future.

Criteria Air Pollutants

Criteria air pollutants—carbon monoxide, ozone and particulate matter—are most pervasive in urban environments, which have been the subject of ambient air quality standards. The Bay Area's topographical and wind factors reduce local concentrations of criteria air pollutants in Pittsburg. Motor vehicle use is expected to continue to be a major source category of regional emissions.

The primary role of cities in achieving and maintaining regional air quality is through land use decision-making, which can affect vehicle miles traveled, and through other measures to manage the emission of pollutants. BAAQMD identifies specific Transportation Control Measures, which together with other approaches, may help reduce emissions in Pittsburg, contributing to regional pollution control efforts.

Bay Area Air Quality Management District (BAAQMD) operates a regional network of air pollution monitoring stations that provide information on ambient concentrations of criteria air pollutants and toxic air contaminants. Table 4.4-1 shows a five-year summary of air pollutant concentration monitoring data collected at the Pittsburg monitoring station located at 583 West Tenth Street, and compares air pollutant concentrations with the state standards.

Local Air Quality

Six types of air pollutants are monitored in the Planning Area - ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead. Between 1992 and 1996, Pittsburg met State ambient air quality standards for each of these pollutants, with the exception of ozone and particulate matter (PM-10). The City experienced an average of 12 ozone violations per year during that time period, with the highest instance of violations (21) occurring in 1995. Average PM-10 levels exceeded State standards each year as well (between 1992 and1995; 1996 data was not available).

Table 4.4-1
Pittsburg Air Pollutant Summary, 1992-1996

Pollutant	State Standard[2]	Monitoring Data by Year 1992	1993	1994	1995	1996
Ozone (O_3)						
Highest 1-hr. average, ppm [1]	0.09	**0.11**	**0.13**	**0.11**	**0.12**	**0.12**
Number of violations		10	7	10	21	12
Carbon Monoxide (CO)						
Highest 1-hr. average, ppm	20	5	6	6	6	7
Number of violations		0	0	0	0	
Highest 8-hr. average, ppm	9.0	3.9	2.8	3.5	2.8	2.9
Number of violations		0	0	0	0	0
Nitrogen Dioxide (NO_2)						
Highest 1-hr. average, ppm	0.25	0.08	0.08	0.08	0.08	0.07
Number of violations		0	0	0	0	0
Sulfur Dioxide (SO_2)						
Highest 1-hr. average, ppm	0.25	0.10	0.05	0.03	0.04	.03
Number of violations		0	0	0	0	
Particulate Matter (PM-10)						
Highest 24-hr. average, $\mu g/m^3$	50	**73**	**81**	**87**	**56**	NA
Violations/Samples [3]		8/61	2/59	4/60	1/61	1/NA
Annual Geometric Mean, $\mu g/m^3$	30	22.6	19.3	20.2	17.2	16.1
Lead (Pb)						
Highest monthly average [3], $\mu g/m^3$	1.5	0.05	0.06	0.04	0.06	0.02
Number of violations		0	0	0	0	0

1 ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.

2 State standard, not to be exceeded.

3 PM-10 and Pb are usually measured every sixth day (rather than continuously like the other pollutants). For PM-10, "violations/samples" indicates the number of violations of the state standard that occurred in a given year and the total number of samples that were taken that year. PM-10 data are from the Concord monitoring station.

NOTE: Values shown in **bold** type exceed the applicable standard.

Source: CARB, California Air Quality Data, 1992, 1993, 1994, 1995; BAAQMD, unpublished data, 1997.

Toxic Air Contaminants

Toxic air contaminants are those pollutants that are found in urban environments at low concentrations and are associated with adverse human health effects, but which are not the subject of ambient air quality standards. Toxic air contaminants are emitted by a wide range of mobile and stationary sources, including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. BAAQMD regulates toxic air contaminants from stationary sources through their permit process; mobile sources of toxic air contaminants are regulated indirectly through vehicle emissions standards and through fuel specifications. Cities have a role in reducing public exposure to toxic air contaminants by ensuring sufficient buffer zones around stationary sources and reducing vehicle trips.

Odors and Nuisances

Odors and nuisances include those emissions which occur infrequently but which have the potential to generate citizen complaints. A review of BAAQMD records indicates certain industrial facilities in Pittsburg occasionally generating citizen complaints. Increased buffering of incompatible uses and control of dust from construction are potential local approaches to controlling odors and nuisances.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Excessive carbon monoxide, ozone precursors, and particulate matter emissions within Pittsburg, due to increased vehicular traffic; or
- Increased air pollutant levels resulting from construction activities for new development.

ANALYSIS OF IMPACTS

Impact 4.4-a Development under the General Plan may lead to increased emissions of carbon monoxide, ozone precursors, and particulate matter, and degradation of local air quality. *[Potentially significant]*

New residential and business commercial development within the City will significantly increase the local population. Although commuter ridership levels are steadily increasing on the BART system, such population and employment growth will undoubtedly lead to increases in daily vehicle trips and traffic congestion. Increased vehicle miles traveled results in traffic congestion and carbon monoxide, ozone precursors (ROG and No_x), and PM-10 emissions, and therefore degradation of local air quality. Increased air pollutant emissions are considered a *potentially significant* impact.

Air pollutant emissions were projected for General Plan buildout based on vehicle hours traveled (VHT) projections completed for the traffic analysis (see Section 4.3: Transportation). Table 4.4-2 shows projected air pollutant emissions for the Pittsburg Planning Area and Contra Costa County at PM Peak Hour.

Table 4.4-2
Emissions at PM Peak Hour: 2025, Pittsburg & Contra Costa County

	ROG	*CO*	*NOX*	*PM-10**
General Plan Buildout				
Pittsburg Planning Area	0.5	9.5	1.8	0.1
Contra Costa County	7.7	136	25	1.0

* Consists of exhaust emissions and contributions due to tire and brake wear.

Source: MO'C Physics Applied, 2000.

Mitigation Measures

Proposed General Plan provides policies targeted at minimizing auto emissions pollutants include:

7-G-17 Encourage major employers to develop and implement transportation demand management (TDM) programs to reduce peak-period trip generation.

7-P-51 Encourage major employers (for example: USS-POSCO, DOW Chemical, City of Pittsburg) to adopt TDM programs that would reduce peak-period trip generation by 15 percent or more.

7-P-52 Favor TDM programs that limit vehicle use over those that extend the commute hour.

7-P-53 During review of development plans, encourage major employers to establish designated carpool parking areas in preferable on-site locations (for example, under parking shelters or closest to main entryways).

9-P-25 Cooperate with the Bay Area Air Quality Management District (BAAQMD) to achieve emissions reductions for ozone and it's precursor, PM-10, by implementation of air pollution control measures as required by State and Federal statutes.

9-P-29 Minimize emissions and air pollution from City operations by using alternative-fuel vehicles, as feasible.

Significance After Mitigation

Implementation of the above policies will reduce the impact. However, because regional through traffic also contributes to air pollutant levels within the air basin, it is considered a significant, unavoidable impact.

Impact 4.4-b The General Plan may be inconsistent with the 1997 Clean Air Plan. *[Significant]*

According to the BAAQMD, a general plan is consistent with the 1997 Clean Air Plan if it meets the following criteria:

- Population and vehicle miles traveled (VMT) assumptions of the general plan are consistent with those used in developing the Clean Air Plan;
- The general plan implements the Transportation Control Measures (TCMs) identified for implementation by local agencies in the Clean Air Plan; and
- The general plan provides buffer zones to avoid impacts related to odors and toxins.

Inconsistency with Clean Air Plan criteria is considered a *significant* impact.

Population and VMT

Under the proposed General Plan, population in the Planning Area is expected to increase from 71,400 in 2000 (ABAG Projections 2000) to 98,800 in 2020 (Pittsburg General Plan buildout). However, the 1997 Clean Air Plan is based on population projections in ABAG Projections 1996. Projections 1996 include projections only through year 2015, but extrapolating the annual growth rate between existing 2000 and projected 2015 provides the basis for estimating a 2020 population. A 2.8 percent annual growth rate would result in a 2020 population of approximately 116,588. Buildout under the Pittsburg General Plan falls significantly lower than this projection. However, only a higher growth rate than that used by the Clean Air Plan would be considered an inconsistency; therefore the buildout assumptions used in the proposed General Plan are consistent.

The 1997 Clean Air Plan projected a 1.4 percent increase in VMT per year. According to Table 4.4-3, daily VMT are expected to increase to approximately 182,500 under General Plan buildout.

Table 4.4-3
Projected VMT and VHT, Pittsburg and Contra Costa County

Type	*VMT*	*VHT*	*Average MPH*
Pittsburg Planning Area			
Highway	96,369	3,957	24.4
Expressway	13,774	329	41.9
Major Arterial	62,755	2,354	26.7
Minor Arterial	8,119	516	15.7
Collector	1,503	87	17.3
Totals	**182,521**	**7,243**	**25.2**
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Major Arterial	763,389	33,770	22.6
Minor Arterial	345,695	18,302	18.9
Collector	57,994	3,493	16.6
Totals	**2,524,429**	**109,307**	**23.1**

Source: Fehr & Peers, 2000.

Transportation Control Measures

Transportation Control Measures (TCMs) are defined as "any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions." The Clean Air Plan identifies TCMs for implementation by local agencies, including cities. These include assistance to regional and local ridesharing organizations, improvement of bicycle access and facilities, improvement of arterial traffic management, expansion of transit use incentives, and incorporation of air quality beneficial policies and programs into local planning and development activities. Applicable TCMs are described in Table 4.4-4.

Table 4.4-4
Transportation Control Measures (TCMs) for City Implementation (1997 Clean Air Plan)

TCM 1: Voluntary Employer-Based Trip Reduction Programs	Provide assistance to regional and local ridesharing organizations; advocate legislation to maintain and expand incentives (e.g., tax deductions/credits).
TCM 9: Improve Bicycle Access and Facilities	Improve and expand bicycle lane system by providing bicycle access in plans for all new road construction or modifications.
	Designate a staff person as a Bicycle Program Manager.
	Develop and implement comprehensive bicycle plans.
	Encourage employers and developers to provide bicycle access and facilities.
	Provide bicycle safety education.
TCM 12: Improve Arterial Traffic Management	Study signal preemption for buses on arterials with high volume of bus traffic.
	Improve arterials for bus operations and to encourage bicycling and walking.
	Continue and expand local signal timing programs, only where air quality benefits can be demonstrated.
TCM 15: Local Clean Air Plans, Policies and Programs	Incorporate air quality beneficial policies and programs into local planning and development activities, with a particular focus on subdivision, zoning and site design measures that reduce the number and length of single-occupant automobile trips.
TCM 19: Pedestrian Travel	Review/revise general/specific plan policies to promote development patterns that encourage walking and circulation policies that emphasize pedestrian travel and modify zoning ordinances to include pedestrian-friendly design standards.
	Include pedestrian improvements in capital improvements program.
	Designate a staff person as a Pedestrian Program Manager.
TCM 20: Promote Traffic Calming Measures	Include traffic calming strategies in the transportation and land use elements of general and specific plans.
	Include traffic calming strategies in capital improvements programs.

Source: Bay Area Air Quality Management District, Clean Air Plan, 1997.

All of the above TCMs are implemented within the proposed General Plan; and therefore remain consistent with the Clean Air Plan. See Transportation Impact 4.3-c for a more detailed discussion of bicycle and pedestrian connections.

Buffers

Consistent with the third Clean Air Plan criterion, the General Plan includes policies designed to avoid impacts related to odors and toxins by separating or requiring buffers between potentially incompatible uses. See Land Use Impact 4.1-a for a more detailed discussion of incompatible land uses.

Mitigation Measures

Proposed General Plan provides policies targeted at ensuring consistency with the 1997 Clean Air Plan include:

7-P-23 Develop procedures and guidelines to mitigate neighborhood traffic impacts in areas where traffic speeds or volumes exceed posted speed limits or standards established above.

7-P-29 Preserve options for future transit use when designing improvements for roadways. Ensure that developers provide bus turnouts and/or shelters, where appropriate, as part of projects.

7-P-31 Work with Tri-Delta and County Connection to schedule signal timing for arterials with heavy bus traffic, where air quality benefits can be demonstrated.

7-P-33 As part of development approval, ensure that safe and contiguous routes for pedestrians and bicyclists are provided within new development projects.

7-P-36 Designate a Bicycle and Pedestrian Program Manager for the City of Pittsburg.

7-P-37 Develop a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with City and County open space areas.

7-P-39 Ensure provision of sufficiently wide sidewalks and pedestrian paths in all new residential development. Ensure the provision of multi-use trails or trailheads within new hillside developments, preferably connecting to the regional trail network.

7-P-42 Provide adequate roadway width dedications for bicycle lanes, paths, and routes as designated in Figure 7-4.

7-P-43 Develop a city-wide Bicycle Master Plan by year 2005. Cooperate with the Contra Costa County RTPC in implementing construction of bicycle facilities within the Bicycle Action Plan.

7-P-44 During review of development projects, encourage bike storage and other alternative transportation facilities at employment sites, public facilities, and multi-family residential complexes.

7-P-51 Encourage major employers (for example: USS-POSCO, DOW Chemical, City of Pittsburg) to adopt TDM programs that would reduce peak-period trip generation by 15 percent or more.

7-P-54 Allow the reduction of transportation impact fees on new non-residential development commensurate with provision of TDM measures.

Significance After Mitigation

Implementation of the above policies will reduce the impact; however, it will still be considered significant.

Impact 4.4-c Construction, grading, and excavation associated with new development and reuse may generate dust and other air particulates. *[Potentially significant]*

Construction activity often produces high levels of fugitive dust, including PM-10 particulate matter. Construction-related fugitive dust is generated primarily by grading activities and heavy equipment

travel over temporary roads on-site. Fugitive dust emissions at a given construction site would vary daily depending on the level and type of activity, silt content of the soil, and the weather. However, such matter is highly susceptible to airborne movement by wind, and may affect air quality levels in adjacent sites (particularly PM-10 concentrations). Fugitive dust generated from construction activities is considered a *potentially significant* impact.

Mitigation Measures

Proposed General Plan policies targeted at minimizing particulate matter resulting from construction activity include:

9-P-27 Adopt the standard construction dust abatement measures drafted by Bay Area Air Quality Management District (BAAQMD).

10-P-5 Ensure the installation of fencing around construction sites to reduce wind velocity and soil transport at the sites.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.5 PARKS, OPEN SPACE, AND AGRICULTURAL RESOURCES

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding parks, recreation and agricultural resources, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 9: Parks, Recreation, and Open Space and Chapter 12: Environmental Resources and Conservation (June 1998), available from the Pittsburg Community Development Department.

Parks and Recreation

Pittsburg's Public Services Department manages the maintenance of the City's park facilities, while the Leisure Services Department manages the acquisition, development, and operation of the parks. The Leisure Services Department also administers and operates youth and adult sports, aquatics, after-school programs, excursions and other recreational programming for the community. Ambrose Park and Recreation District manages Ambrose Park in Bay Point, while East Bay Regional Park District (EBRPD) manages Browns Island Regional Shoreline and Black Diamond Mines Regional Preserve.

Pittsburg has about 312 acres of parkland in the City park system. Parks range in size from one quarter-acre mini-parks to the 190-acre Stoneman Park. The City currently maintains a neighborhood and community park standard of five acres per 1,000 residents, the maximum permitted under Quimby Act, which also forms the basis of the City's dedication and park fee requirements. Existing parks are listed in Table 4.5-1, and shown in Figure 4.5-2 below.

Trails and Open Space

Regional open spaces within the Planning Area include Browns Island Regional Shoreline and Black Diamond Mines Regional Preserve, both owned by EBRPD. Browns Island Regional Shoreline is a tidal marshland area directly across New York Slough from Downtown. The Island Preserve provides habitat for a variety of the region's waterfowl and wetlands animals. Black Diamond Mines Regional Preserve was a profitable source of coal for many miners during the mid to late 1800s. Riddled with underground mining tunnels, the hills on Pittsburg's southern border now provide valuable grasslands habitat and recreational open space acreage.

Several trails provide residents with access to regional open spaces, as well as connections to various neighborhoods within the City, as described in Table 4.5-2. The Delta De Anza Trail runs east-west through the Planning Area for nearly 4.8 miles along the Mokelumne Aqeduct, an East Bay Municipal Utility District (EBMUD) right-of-way. The Harbor Street trailhead is a small park offering access to the Delta De Anza Trail, with park amenities such as picnic benches and a parking lot. The Stoneman Park trailhead offers similar access to a trail through the canyons of Stoneman Park. The Eighth Street Linear Park, currently being developed, provides a linear greenway through the City's older neighborhoods near Downtown, and will connect to other multi-use trails along the waterfront.

Table 4.5-1
Local Park System, City of Pittsburg, January 2000

Park Name	*Acres*	*Picnic/Passive*	*Play Areas*	*Sports Facilities*
Community Parks				
Buchanan	16.0	●	●	●
Central Harbor	1.5	●		
City Park	28.0	●	●	●
Del Monte Center	2.5			●
Marina Center	2.7	●		
Riverview	4.0	●	●	
Small World	8.0	●	●	
Stoneman	190	●		
Stoneman North	8.0	●	●	●
Community Parks Subtotal	261			
Neighborhood Parks				
California Seasons	2.5	●	●	●
Central[1]	8.0	Under construction		●
DeAnza	3.5	●	●	●
Highlands	4.5	●	●	●
Hillsdale	3.5	●	●	●
Marina	15.0	●	●	●
Marina Walk	1.7	●	●	
Oak Hills	5.0	●	●	●
Peppertree	2.5	Undeveloped		
Village at New York Landing	1.5	●		
Woodland Hills	2.4	●	●	●
Neighborhood Parks Subtotal	50			
Mini Parks				
Downtown/Railroad Ave.	0.25	●		
La Plazita[1]	0.25	Undeveloped		
Ninth and Montezuma	0.25	Undeveloped		
Village (2 x 0.25 acres)	0.5	●		
Heritage Park	0.1	●		
Mini Park Subtotal	1.3			
Total Local Parks Acreage	**312**			

[1] Leased to the City of Pittsburg.

Source: City of Pittsburg, Leisure Services Dept.

Table 4.5-2
Trails & Open Space: Pittsburg Planning Area, 2000

Trails / Trailheads	*Miles Long*	*Total Acres*
Delta De Anza Trail	4.8	78.0
Harbor Street trailhead	n/a	1.0
Stoneman Park trailhead	n/a	0.5
Oak Hills trailheads (2 x 0.5 acres)	n/a	1.0
8th Street Linear Park*	0.8	4.4
Santa Fe Linear Park*	0.4	3.1
Columbia Linear Park*	0.3	4.8
Trails Subtotal		*93*
Open Space		
Black Diamond Regional Preserve		3,700
Browns Island Regional Shoreline		700
Open Space Subtotal		*4,400*
Total Trails & Open Space Acreage		**4,493**

** Currently (year 2000) under construction.*
Source: City of Pittsburg, Leisure Services Dept.

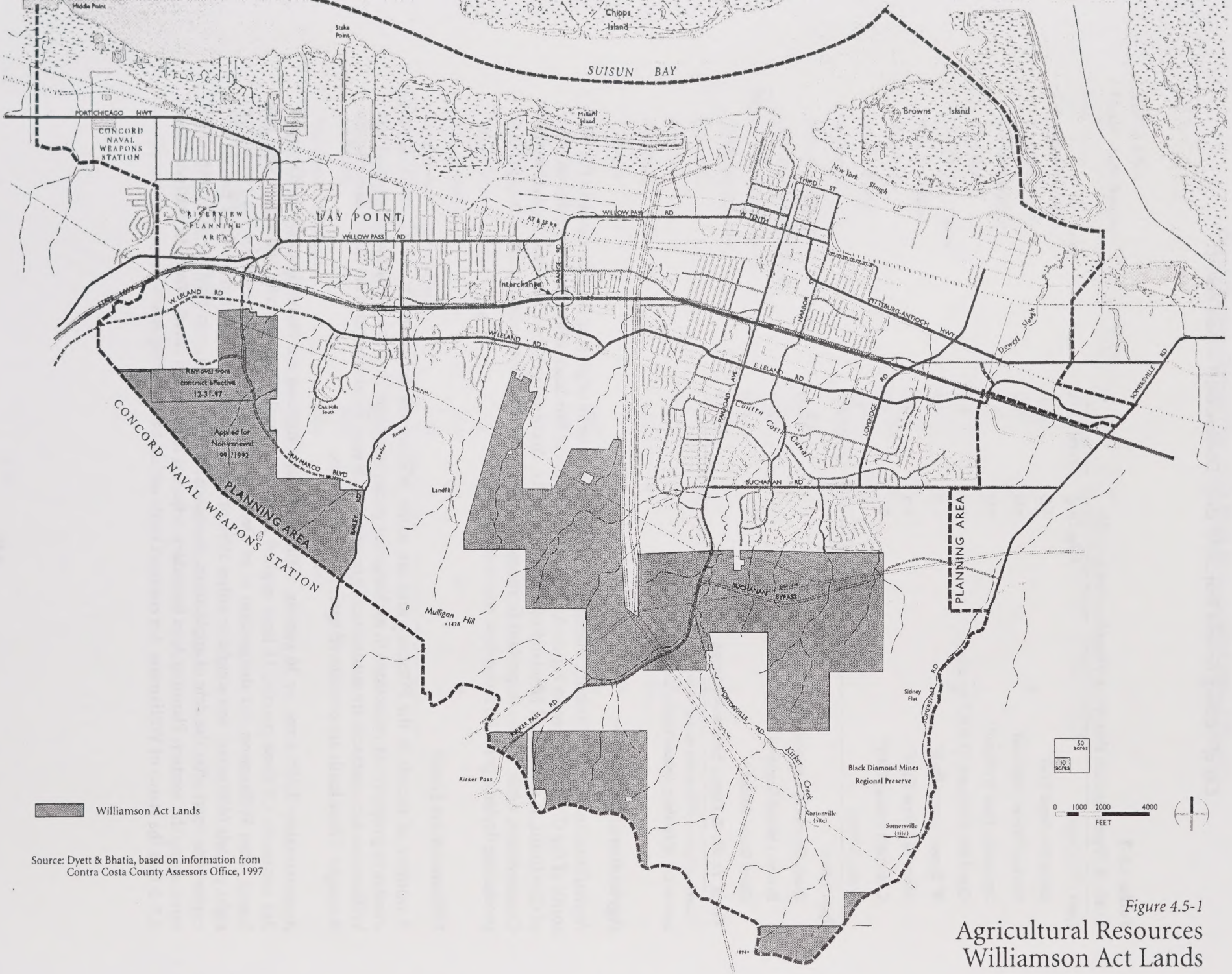
Agricultural Resources

Agricultural uses in the Pittsburg Planning Area consist primarily of grazing land for cattle in the hills south of the City. As shown in Figure 4.5-1, a small portion of this land, adjacent to the southern edge of City limits, is considered farmland of local importance. According to the California Department of Conservation, while locally important farmland is typically used for livestock grazing, it is capable of producing dryland grain on a two-year summer fallow.

Williamson Act Lands

A number of parcels in the Pittsburg area are under Williamson Act contracts, which entitle landowners to property tax reductions in exchange for preserving their land as agricultural or open space. Williamson Act contracts are automatically renewed each year for at least 10 years unless cancellation is sought. These lands are considered agricultural preserves.

Approximately 3,885 acres, or 36 parcels, within the Planning Area are currently under Williamson Act contracts. Of these parcels, 11 have applied for non-renewal. Three parcels (300 acres) were released from Williamson Act designation as of December 31, 1997. Non-renewal for the remaining eight parcels (690 acres) was sought in either 1991 or 1992; contract designation for these parcels will expire nine years after the date of application. As shown in Figure 4.5-1, non-renewal parcels are clustered along the western Planning Area boundary, adjacent to Concord Naval Weapons Station. Table 4.5-3 lists the status of Williamson Act contract lands within the Planning Area.



Source: Dyett & Bhatia, based on information from Contra Costa County Assessors Office, 1997

Figure 4.5-1

Agricultural Resources Williamson Act Lands

Table 4.5-3
Williamson Act Lands, Pittsburg Planning Area

Status	*Acres*
Under Contract	3,528
Removal from Contract as of 12/31/97	306
Applied for Non-Renewal 1991	708
Total Williamson Act Lands	4,542

Source: Contra Costa County Assessor's Office, 1997.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- A shortage of neighborhood parkland available to new residents;
- Loss of passive recreational opportunities in open spaces and multi-use trails; or
- Loss of prime farmland or farmland of statewide importance due to new hillside development.

ANALYSIS OF IMPACTS

Impact 4.5-a Future development may create a shortage of neighborhood park facilities accessible to all residents. *[Potentially significant]*

Population increases resulting from proposed General Plan development will generate demand for additional parks and recreation facilities. Inadequate parks and recreation facilities available to all residents is considered a *potentially significant* impact.

Approximately 48 acres of new parkland are proposed within the General Plan to meet additional demands, which will result in a total of 360 acres of accessible public parkland in 2020. Proposed park facilities are listed in Table 4.5-4. Implementation of all park improvements would create a ratio of 4.3 acres of parkland per 1,000 residents, within City limits (based on a General Plan buildout population of 83,000), compared to the 2000 ratio of 5.8 acres per 1,000 residents. However, consideration of all designated open space within the Planning Area—including Browns Island, Black Diamond Mines, and various linear trails—results in a total of 4,853 acres of parks and open space at buildout.

Table 4.5-4
Proposed Parks, City of Pittsburg

Proposed Parks	*Acres*
San Marco community park	17.0
San Marco school/park site	5.0
Americana neighborhood park	3.9
Alves Ranch neighborhood park	4.3
Highlands Ranch neighborhood park	5.0
West Tenth Street neighborhood park	4.8
Buchanan park expansion	3.8
Kirker Pass neighborhood park	4.3
Total Proposed Park Sites	**48**

Source: City of Pittsburg, General Plan Land Use Diagram

Figure 4.5-2 shows local accessibility to all park sites by identifying all urban development within ½ mile walking distance of a City park; however, this analysis does not consider public school sites. There are several existing neighborhoods, as well as proposed residential areas, lacking park facilities, including:

- *Loveridge/East Leland.* Several existing High Density Residential complexes along East Leland Road.
- *West Central.* Existing Low, Medium, and High Density Residential neighborhoods along the PG&E power line corridor.
- *West Leland.* Significant number of existing housing units within Low and Medium Density Residential neighborhoods. However, residents have access to Delta De Anza Trail.
- *Buchanan.* Several existing residential areas along northern and southern subarea boundaries, located just outside of the ½-mile accessibility radius. Portions of the existing Medium Density Residential complex built along Kirker Pass Creek. New Hillside Low Density Residential areas proposed south of existing neighborhoods along Suzanne Drive, and south of proposed Buchanan Bypass.
- *Woodlands.* Portions of the proposed Hillside Low Density Residential neighborhoods located adjacent to Kirker Pass and Nortonville Roads
- *Southwest Hills.* Several new Hillside Low, Low, and High Density Residential neighborhoods, including a small isolated development site along Bailey Road at the southern edge of the Planning Area.

Mitigation Measures

The General Plan proposes several new parks, recreation facilities, and open space trails, particularly in areas of new residential development. Additionally, the Plan calls for a variety of new parks, plazas, and greenways as part of the revitalization efforts in Downtown. Park standards established within the General Plan include:

- 5 acres of neighborhood and community parkland per 1,000 residents;
- Within ½ mile radius of all residential development; and
- Minimum 2 acre parks located in new residential developments (target of 5 acres).

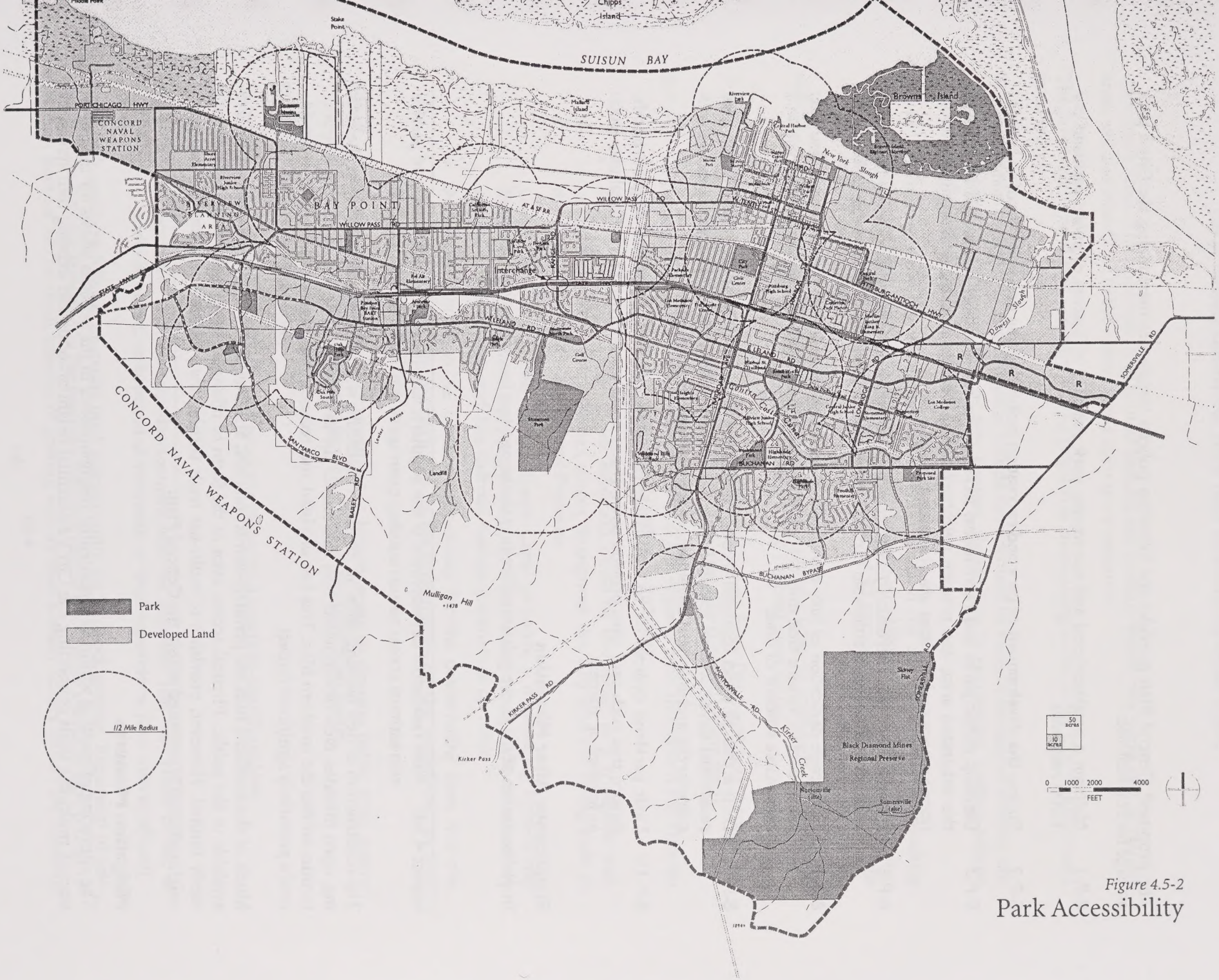


Figure 4.5-2
Park Accessibility

The proposed General Plan provides the following policies targeted at maximizing the City's park acreage for resident use:

8-P-1 Maintain a neighborhood and community park standard of 5 acres of public parkland per 1,000 residents.

8-P-2 Pursue the development of park and recreation facilities within one-half mile of all homes.

8-P-3 Develop public parks and recreational facilities that are equitably distributed throughout the urbanized area, and provide neighborhood recreation facilities in existing neighborhoods where such facilities are presently lacking.

8-P-5 Maintain park and recreation facility standards for new development to serve both residents and employees, attainable through dedication of parkland or payment of in-lieu fees.

8-P-10 Encourage dedication of fully developed parks rather than in-lieu fees. When in-lieu fees are collected, ensure that they are spent acquiring and developing new park sites within a reasonable amount of time.

8-P-11 Ensure that all parks acquired through dedication are at least 2 acres in size within new residential developments (target 5 acres). Accept smaller visual open space areas in new commercial and industrial development for parkland dedications.

8-P-12 Limit parkland dedications to flat, usable parcels within new residential neighborhoods. Ensure that such park sites provide open, grassy areas for informal recreational play (such as football or soccer).

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.5-b New residential development in the southern hillsides may reduce visual and passive recreational access to surrounding open space areas. *[Potentially significant]*

The construction of new housing units on existing vacant hills will alter the visual nature of the rolling, open hillsides. New development may also reduce the availability of passive recreational opportunities within the southern hills. This loss of visual and recreational access to open space is considered a *potentially significant* impact.

Much of the southern hills are privately-owned ranches, and only views of hillside open spaces are available to the public. Physical access, even in the form of hiking or horseback-rising trails, is currently limited. However, provision of multi-use trails within new Hillside Low Density Residential neighborhoods is proposed within the General Plan.

Mitigation Measures

The clustering of housing within new residential neighborhoods in the hillsides allows for the provision of multi-use trails connecting the City's residential neighborhoods and existing trail system to

open space areas. The preservation of natural features and habitats within new parks and recreation areas will also contribute to the community's open space resources.

The proposed General Plan provides policies targeted at maximizing access to the City's hillsides and open spaces:

4-P-15 Minimize the visual prominence of hillside development by taking advantage of existing site features for screening, such as tree clusters, depressions in topography, setback hillside plateau areas, and other natural features.

4-P-17 Encourage clustering of Hillside Low-Density units in the southern hills, with resulting pockets of open space adjacent to major ridgelines and hillside slopes. Allow density bonuses of 10 percent (maximum) for preservation of 40 percent or more of a project's site area as open space.

4-P-27 Ensure that all residential developers provide multi-use trails or trailheads connecting to local schools and parks, commercial centers, and regional open spaces.

8-P-15 Cooperate with regional agencies to develop a "Bay to Black Diamond" trail through the City, providing a diversity of passive recreational opportunities and unique vistas.

8-P-17 Pursue the development and extension of local and regional trails throughout the Planning Area by utilizing available public utility rights-of-ways including:

- *Kirker Creek.* The Kirker Creek easement could be developed as a creekside trail, connecting other trails and open spaces throughout the City with the hiking trails in the Black Diamond Mines Regional Preserve.
- *Contra Costa Canal.* The Contra Costa Canal provides a meandering right-of-way throughout the southern portion of Pittsburg. A trail along this right-of-way could link several neighborhoods with the Railroad Avenue commercial corridor.
- *PG&E Utility ROW.* PG&E holds a right-of-way for the power/utility lines that run north-south from the southern hills to the power plant on the waterfront, an ideal corridor for public access.

8-P-18 Encourage new residential development in hillside areas to develop public trails and/or trailheads providing connections to other regional and local open spaces.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.5-c Expansion of residential development into the southern hills may result in loss of prime farmland, or farmland of statewide or local importance. *[Less than significant]*

Pittsburg's southern hills are currently used intermittently for livestock grazing. Expansion of residential uses into the farmland in the southern hills will reduce the County's stock of agricultural resources. Because of the small amount of grazing activity that actually occurs within the Planning

Area, loss of prime farmland or farmland of statewide or local importance is considered a *less than significant* impact. Under the proposed General Plan, reductions in agricultural lands due to new urban development would include:

- *Buchanan.* Small triangular patch of "farmland of local importance," at terminus of Suzanne Drive.
- *Woodlands/Buchanan/Southwest Hills/South Hills/Black Diamond.* Majority of southern hills considered "grazing land," south of currently developed areas.

Figure 4.5-1 shows that Williamson Act lands within the Planning Area designated for urban development include:

- *Buchanan.* "Farmland of local importance" at terminus of Suzanne Drive.
- *Woodlands.* Pasture between PG&E powerline corridor and Kirker Pass Road. Also, grazing lands at juncture of Kirker Pass and Nortonville Roads.
- *Southwest Hills.* Pasture at southern edge of subarea, along Bailey Road.

Additionally, several hundred acres of grazing land within the Southwest Hills subarea was removed from Williamson Act contracts within the last decade. A section along the proposed San Marco Boulevard alignment was removed from Williamson Act contract, effective December 1997. A larger section along the southern edge of the Planning Area applied for non-renewal in 1991/92. These lands are intended for Hillside Low Density Residential development within the General Plan timeframe.

Mitigation Measures

The proposed General Plan provides policies targeted at preserving open space along the City's southern hills:

8-P-19 Preserve land under Williamson Act contract in agriculture, consistent with State law, until urban services are available and expansion of development would occur in an orderly and contiguous fashion.

9-P-5 Work with Contra Costa County, the East Bay Regional Park District, and the City of Antioch, to expand the regional open-space system in the southern hills to preserve California annual grasslands habitat.

9-P-7 During the design of hillside residential projects, encourage clustering of housing to preserve large, unbroken blocks of open space, particularly within sensitive habitat areas. Encourage the provision of wildlife corridors to ensure the integrity of habitat linkages.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.6 PUBLIC SCHOOLS

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding public schools, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 10: Schools (June 1998), available from the Pittsburg Community Development Department.

The Pittsburg Planning Area is served by three school districts: Pittsburg Unified, Mount Diablo Unified, and Antioch Unified. The Pittsburg Unified School District (PUSD) covers most of the Planning Area, while Mount Diablo Unified School District (MDUSD) serves the majority of Bay Point and the western edge of Pittsburg. The portion of the Planning Area served by Antioch Unified School District is small, comprising several residential blocks on the southeast corner of the City and the primarily commercial Century Boulevard. For this reason, Antioch Unified School District policies have limited impact on the Planning Area. Existing school facilities are shown in Figure 4.6-1.

Pittsburg Unified School District

PUSD currently operates seven elementary schools (grades K-5), two intermediate schools (grades 6-8), and one high school (grades 9-12). In addition, a school site is proposed for the Highlands Ranch subdivision. The schools operate on a nine-month school year, with the exception of one school, which has a modified traditional system. In addition, the school district provides alternative programs, including adult education, independent study, home teaching, and special education.

Mount Diablo Unified School District

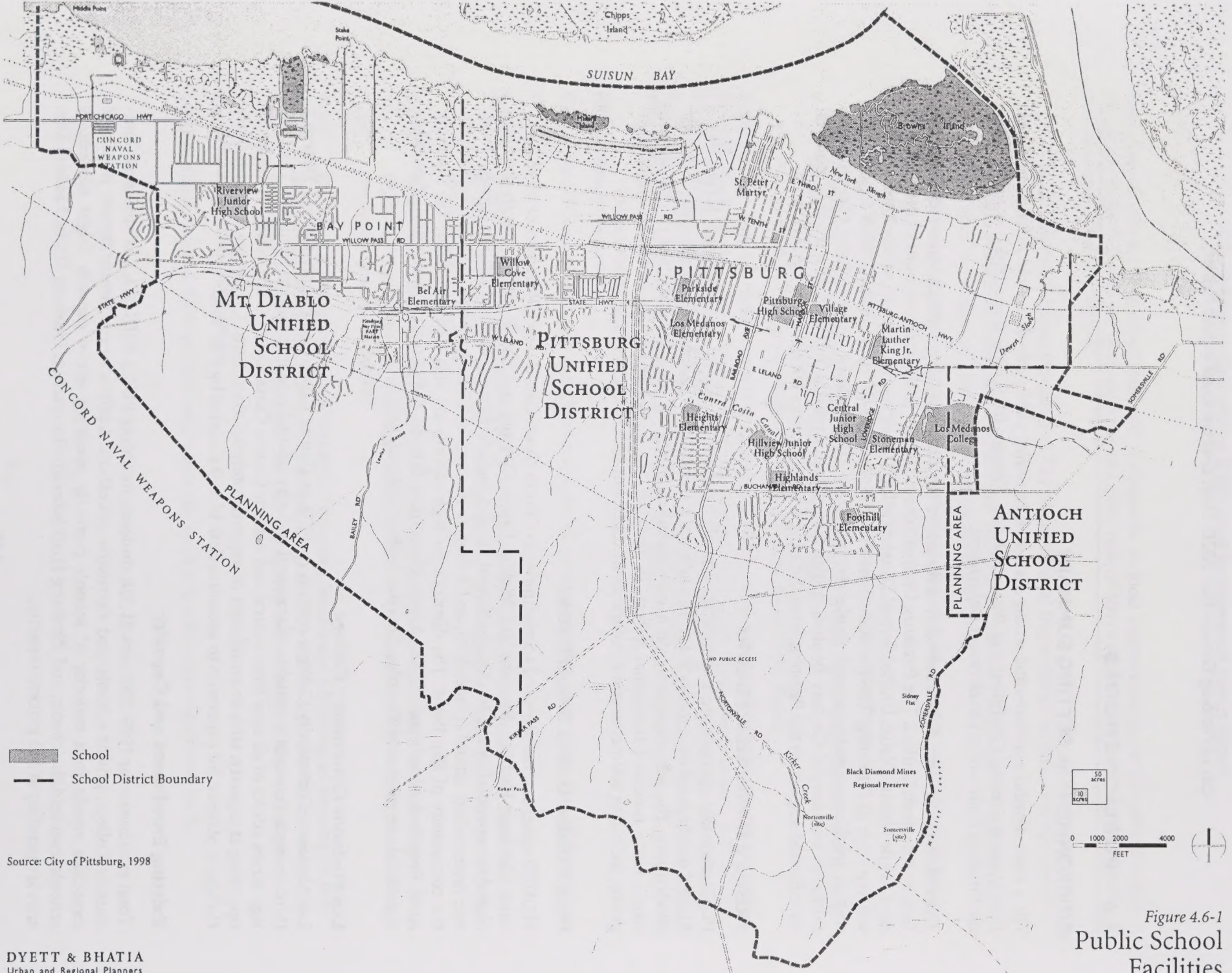
MDUSD spans several cities and communities in Contra Costa County, including part or all of Concord, Martinez, Pacheco, Pleasant Hill, Walnut Creek, Clayton, and Bay Point. Schools in the Planning Area operated by the Mt. Diablo School District include three elementary schools (grades K-5), one intermediate school (grades 6-8), and a continuation school. These schools are all located within the community of Bay Point. The district's six high schools are also located outside the Planning Area. Proposed schools include San Marco Elementary School, and potential conversion of an existing school site within the Planning Area to a high school facility.

Los Medanos Community College

Los Medanos Community College, opened in 1974 as Contra Costa Community College District's third campus, serves as a valuable educational and recreational resource to local residents. The College serves adults of all ages from central and eastern Contra Costa County. The college is currently operating at capacity, with an enrollment of approximately 8,500 students. Los Medanos Community College is planned for expansion to accommodate 10,000 students by year 2005.

Existing Enrollment and Capacity

Total enrollment for 1999-2000 was 21,338 students, including PUSD, MDUSD, Los Medanos Community College, private schools, and alternative education. Analysis of enrollment figures vs. school capacities results in a majority of schools currently operating above capacity (eight elementary schools, two middle schools, and Pittsburg High School). On average, Pittsburg Unified School District is operating at 113 percent capacity.



Source: City of Pittsburg, 1998

DYETT & BHATIA
Urban and Regional Planners

Figure 4.6-1
Public School Facilities

The Pittsburg Unified School District allows students to attend schools outside of their service area. While this policy increases the students' level of choice of schools, it has also created an imbalance in school district enrollment. Table 4.6-1 summarizes student enrollment and capacity for individual elementary, middle and secondary schools within the Pittsburg Planning Area.

Table 4.6-1
Schools, Enrollment and Capacity, Pittsburg Planning Area: 1999-2000

Level	*Name*	*Enrollment*	*Capacity*	*% Capacity*
Pittsburg Unified School District				
Elementary (K-5)	Foothill Elementary	681	650	105%
	Heights Elementary	517	600	86%
	Highlands Elementary	707	650	109%
	Los Medanos Elementary	695	600	116%
	Parkside Elementary	658	650	101%
	Stoneman Elementary	677	650	104%
	Willow Cove Elementary	730	600	122%
Intermediate (6-8)	Central Junior High	1,178	700	168%
	Hillview Junior High	1,048	1,000	105%
High School (9-12)	Pittsburg High	2,000	1,950	103%
Alternative Education	Martin Luther King Preschool	n/a	n/a	n/a
	Adult Education Center	n/a	n/a	n/a
	Riverside Continuation High	178		
	Opportunity	22		
	Independent Study (GRASP)	131	} 420	92%
	Home Teaching	10		
	Community Day School	46		
	Subtotal	**9,602**	**8,470**	**113%**
Mount Diablo Unified School District				
Elementary (K-5)	Bel Air Elementary	691	702	98%
	Shore Acres Elementary	755	726	104%
	Rio Vista Elementary	592	570	104%
Intermediate (6-8)	Riverview Middle	868	893	97%
Alternative Education	Gateway Continuation High School	30	45	67%
	Subtotal	**2,936**	**2,936**	**100%**
Other Schools	Saint Peter Martyr Parochial (PreK-8)	300	345	87%
	Los Medanos Community College	8,500	8,500	100%
	Subtotal	**8,800**	**8,845**	**99%**
Total Schools		**21,338**	**20,251**	**105%**

Source: Pittsburg and Mount Diablo Unified School Districts, and St. Peter Martyr School.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Failure to provide adequate school sites available to serve all new development.

ANALYSIS OF IMPACTS

Impact 4.6-a New residential development in the Planning Area may generate additional student enrollment that would need to be accommodated by Mount Diablo Unified School District. *[Potentially significant]*

New residential development proposed within the southern hills will likely result in approximately 7,000 new housing units within MDUSD boundaries. This new development will result in a population growth of an additional 19,800 people. Student enrollment within MDUSD is projected to reach 5,860, while PUSD is expected to serve approximately 9,000 students in 2020. Increases in population and school demand are considered a *potentially significant* impact.

Student enrollment projections for 2020 were determined using Department of Finance (DOF) age-class cohorts in Contra Costa County, and then extrapolated to Pittsburg's General Plan buildout population. It should be noted that these are projections and future enrollment may vary due to population demographics and other factors that influence school enrollment.

Assuming that the youth population in Pittsburg is consistent with that in Contra Costa County, County age cohorts were applied to the City's General Plan build-out population. The DOF age cohorts estimated that approximately 19 percent of the County's residents were within the student-age population (ages 5-19). The DOF also estimated that only 74 percent of the student-age population will be enrolled in public schools in 2020; this percentage was applied to the City's projected enrollment population. Residential build-out estimates from the General Plan were then used to determine future population increases within the boundaries of each school district, as shown in Table 4.6-2. Total enrollment projections for each age cohort were divided according to the proportion of the projected population within each district.

Table 4.6-2
Buildout Projections, Pittsburg Planning Area, 2020

	2020 Student-Age Population	*% of total*	*Ages 5-9*	*Ages 10-14*	*Ages 15-19*
MDUSD*	33,036	35%	1,670	1,594	1,557
PUSD**	61,713	65%	3,120	2,977	2,909
Total	**94,749**	**100%**	**4,791**	**4,570**	**4,467**

** MDUSD – General Plan Land Use Map (2000), TAZ 11, 12, 13, 14, 15, 32 & 33*
*** PUSD – General Plan Land Use Map (2000), All other TAZs*

Source: Dyett & Bhatia, 2000.

Each school district's estimated enrollment population (by age cohort) was then distributed among school levels according to the following assumptions:

- 100% ages 5-9 in elementary;
- 50% ages 10-14 in elementary, and 50% in intermediate; and
- 80% ages 15-19 in high school, and 20% in alternative.

Enrollment estimates based on General Plan buildout are summarized in Table 4.6-3. Student enrollment at MDUSD is projected to double during the next 20 years, from 2,940 to 5,860 students. In contrast, student enrollment at PUSD will decrease slightly, from 9,600 to 9,000 students. Such increases in student population in MDUSD will necessitate modernization and expansion of existing school sites, as well as construction or conversion of one additional elementary school, one high school, and several alternative programs.

Table 4.6-3
Projected School Enrollment, Pittsburg Planning Area, 2020

	Elementary	*Intermediate*	*High School*	*Alternative*	*Total*	*% of Total*
PUSD	4,609	1,488	2,327	582	9,007	61%
MDUSD	2,467	797	1,246	1,347	5,857	39%
Total	**7,076**	**2,285**	**3,573**	**1,929**	**14,864**	**100%**

Source: California Department of Finance K-12 Enrollment Projections, Pittsburg General Plan 2000 Buildout Projections, Dyett & Bhatia

The General Plan has identified five potential school sites within the Pittsburg Planning Area. Land has been reserved for either a double elementary/junior high school or potential high school within PUSD, at the intersection of Range and West Leland Roads. Another proposed schools site has been identified at the intersection of East Buchanan Road and proposed Highland Ranch Road. The site, approximately five acres in size, is too small to accommodate a modern school facility. However, acquisition of City-owned lands (five acres) adjacent to the proposed site would make it feasible for construction of an elementary school. Until this acquisition occurs, the site will not be considered any further. A third PUSD site at Harbor Street, between Atlantic and Stoneman Avenues, has also been considered; but this site is also being abandoned because it is too small to accommodate a modern school facility. A proposed site for San Marco Elementary School has been generally identified within MDUSD, along proposed San Marco Boulevard within the southern hills.

Mitigation Measures

The proposed General Plan provides policies targeted at ensuring the provision of adequate public school facilities in light of projected population growth:

8-P-29 Work with Mount Diablo Unified School District to ensure that the timing of school construction and/or expansion is coordinated with phasing of new residential development.

Under this policy, MDUSD has a variety of options for providing adequate school facilities to future residents. These include:

- Construction of a new elementary school within the San Marcos subdivision in the Southwest Hills sub-area.

- Expansion and modernization of existing school facilities.
- Increased capacity of existing school sites by transitioning from traditional school year scheduling to multi-track year-round scheduling.

8-P-31 As part of development review for large residential subdivisions (greater than 100 units), evaluate the need for new school sites. If needed, encourage subdivision design to accommodate school facilities and cooperate with the school districts in acquisition of those sites.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.6-b New development may generate additional high school student enrollment beyond current capacity. *[Potentially significant]*

Student enrollment projections based on General Plan buildout estimate a gain of 1,570 high school students by 2020. Approximately 1,250 of these students will live within MDUSD in new residential neighborhoods. Therefore, MDUSD is in need of a school site available for construction or conversion of a high school facility. Failure to designate an adequate site in the southern hills will result in increased commuting patterns for Pittsburg students traveling to Mount Diablo High School in Concord. High school student enrollment beyond facility capacity is considered a *potentially significant* impact.

However, MDUSD is considering several options to accommodate increased high school enrollment without actually constructing a new high school facility. MDUSD may convert the existing Riverview Junior High School campus to a high school facility, as it was previously. This alternative approach would also require the replacement of the junior high campus, through construction or conversion of an existing elementary site. MDUSD may opt to convert existing school sites to serve higher-level students, and limit construction to new elementary campuses (which are less costly to build). MDUSD is considering all alternatives to mitigate future residential growth and has not chosen a strategy at this time.

Mitigation Measures

The proposed General Plan provides policies targeted at:

2-P-98 Support efforts by Mount Diablo Unified School District to establish a public high school in Bay Point.

8-P-30 Designate adequate land area within MDUSD boundaries for the construction of a new high school facility.

Significance After Mitigation

Implementation of Policy 8-P-30 will reduce the impact to a less-than-significant level.

4.7 FIRE SAFETY AND EMERGENCY

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding fire safety and emergency, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 13: Safety (June 1998), available from the Pittsburg Community Development Department.

The risk of both urban and wildland fires exist in the Pittsburg Planning Area. The most common sources of urban fires are faulty heating systems and kitchen appliances. While the potential exists of industrial fires caused by hazardous material releases, very seldom do they occur.

The Contra Costa County Fire Protection District (CCCFPD) provides fire protection and suppression services for the City and a majority of the County. CCCFPD operates out of 29 fire stations located throughout its jurisdictional area. Battalion 8 provides fire protection services for Pittsburg, Antioch, and surrounding unincorporated areas such as Bay Point. There are a total of eight stations in the battalion. Four fire stations—Stations 84, 85, 86 and 87—currently serve Pittsburg and Bay Point. Table 4.7-1 lists station locations and facilities.

Table 4.7-1
Fire Station Locations and Facilities, Pittsburg Planning Area

Station	*Location*	*Facilities*
Station 84	200 East Sixth Street, Pittsburg	Quint, Powerwagon
Station 85	2555 Harbor Street, Pittsburg	Engine, Powerwagon
Station 86	3000 Willow Pass Road, Bay Point	Engine, Powerwagon
Station 87	800 West Leland Road, Pittsburg	Engine, Powerwagon

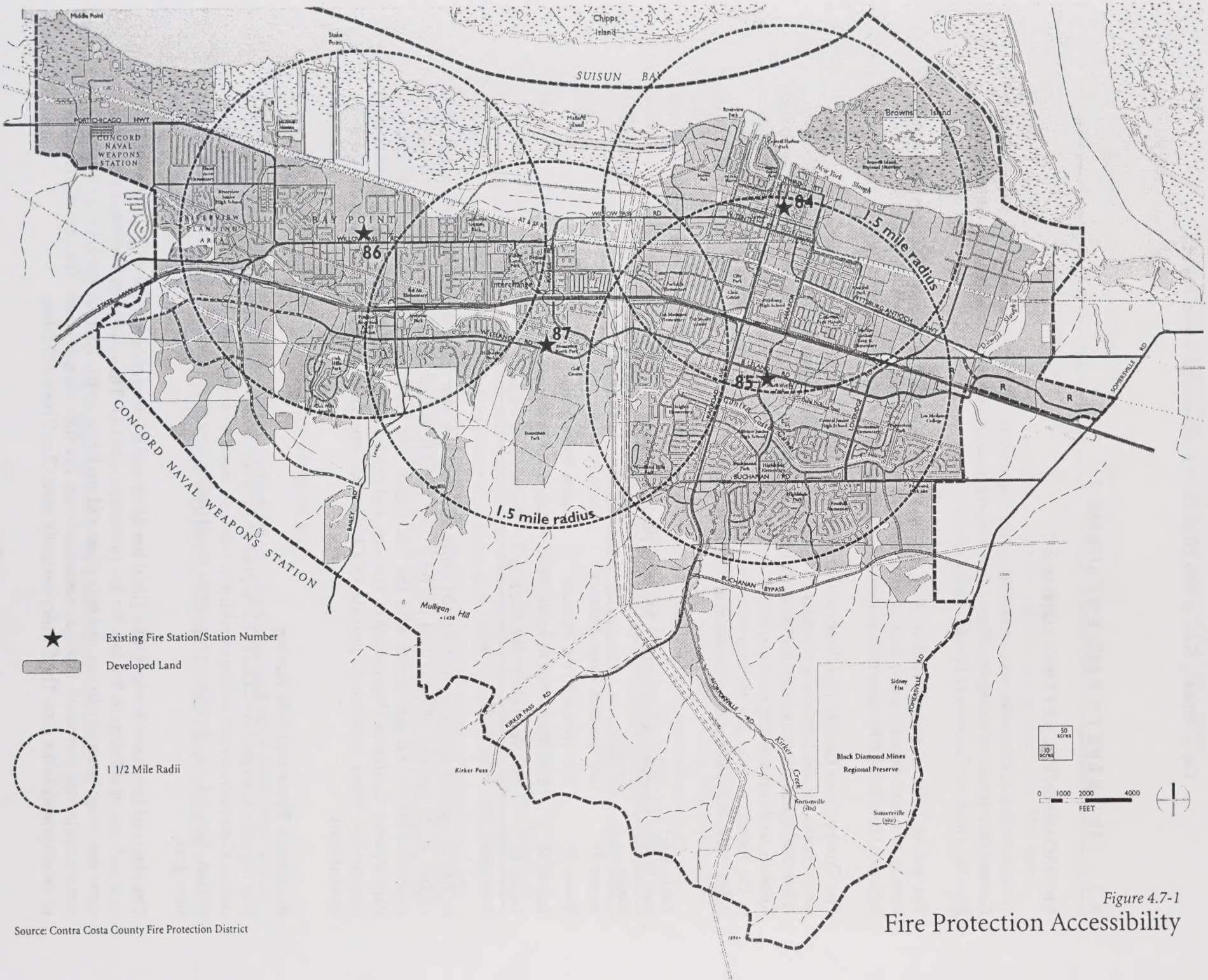
Source: Contra Costa County Fire Protection District

CCCFPD receives approximately 42,000 urban fire calls per year from within the district. About 10,500, or 25 percent, of these calls are from East County, which includes Pittsburg. The District maintains mutual aid agreements with the East Diablo Fire Protection District, East Bay Regional Park District, California Department of Forestry, and private industrial companies located within its jurisdiction. These agreements provide CCCFPD with emergency response assistance on an as-needed basis.

Response Time and ISO Rating

The response time goal for CCCFPD is to provide fire protection service within five minutes of notification. Generally, service can be provided in this time frame to areas located within 1.5 miles of a fire station. Figure 4.7-1 identifies areas within the Planning Area that are accessible within the response time goal.

The National Insurance Service Office (ISO) has developed a rating system to identify the level of service and risk of substantial fire loss for fire protection districts. The ratings are insurance classifications that range from one to ten, one being best and ten being worst. They are based on a number of factors, including personnel, facilities, response times, fire flow capacities, and the general character of development in the area. The District currently has a Class Three ISO rating.



Source: Contra Costa County Fire Protection District

Figure 4.7-1

Fire Protection Accessibility

Emergency Plan

In 1999, Pittsburg approved an update of the 1996 Emergency Plan. The Emergency Plan indicates that a major earthquake in the San Francisco Bay Region would result in widespread damage, large numbers of casualties, and disruption of infrastructure such as transportation, utility service, emergency services, and medical response. It is likely that Pittsburg would experience non-structural property damage and utility service interruptions following strong seismic activity on the Concord-Green Valley Fault. However, the potentially catastrophic effects of an earthquake on the Hayward Fault would more than likely exceed the response capabilities of both the City and the County.

A particular concern for the City is the possibility of an earthquake triggering an industrial disaster. The density of petroleum and chemical industries and the trans-shipping of military explosives result in large quantities of potentially explosive, flammable and poisonous materials being stored, processed and transported through Pittsburg and throughout the County. The City works together with industry to encourage modernization and seismic retrofit of industrial facilities.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Increased exposure of Pittsburg residents to wildland and urban fire hazards; or
- Residential and other development inaccessible by fire personnel within the response time goal.

ANALYSIS OF IMPACTS

Impact 4.7-a New development in the hillsides may be exposed to the risk of wildland and urban-interface fire hazards. *[Potentially significant]*

Buildout of the proposed General Plan will significantly increase the City's housing stock, particularly within the western portion of the Planning Area. Because of environmental constraints, residential structures in the southern hills will be sited adjacent to open slopes and grasslands habitat areas; therefore risk of wildland and urban-interface fires will be present. Hillside Low Density Residential clusters in the Buchanan, Woodlands, and Southwest Hills subareas are particularly susceptible to urban-interface fire hazards. Exposure to wildland and urban-interface fire hazards is considered a *potentially significant* impact.

Mitigation Measures

Proposed General Plan policies targeted at minimizing wildland and urban fire hazards for new residential development include:

2-P-24 Ensure that new hillside development utilizes fire-resistant building materials, per the Uniform Building Code. Require that all residential units adjacent to open slopes maintain a 30-ft setback with fire-resistant landscaping.

2-P-25 Minimize single-access residential neighborhoods in the hills; maximize access for fire and emergency response personnel.

11-P-5 Work with Contra Costa Water District in planning the development of new pressure zones as needed to ensure adequate fire flows in hillside areas.

11-P-22 Amend the subdivision regulations to include a requirement for detailed fire prevention and control, including community firebreaks, for projects in high and extreme hazard areas.

11-P-23 Review and amend ordinances that regulate development in potentially hazardous locations to require adequate protection, such as fire-resistant roofing, building materials, and landscaping.

11-P-24 Cooperate with Contra Costa County Fire Protection District (CCCFPD) to ensure that all new development is constructed within the 1.5-mile response radii from a fire station.

Significance After Mitigation

Implementation of Policy 2-P-20 will reduce the impact to a less-than-significant level.

Impact 4.7-b Some new development in the southern hills may not be accessible by fire personnel within established response times. *[Potentially significant]*

A 1.5-mile response area is considered adequate to ensure five-minute emergency response to all properties; which would suggest that all fire stations be located at 3-mile intervals. Two of the CCCFPD fire stations located in Pittsburg—84 (East 6th Street) and 85 (Harbor Street)—are considered too close together (2 miles apart). Station 87, recently constructed on West Leland Road, is intended to provide enhanced coverage to areas under development in the Southwest Hills. However, future hillside development south and/or west of proposed San Marco Boulevard may create the need for an additional fire station to ensure adequate fire response.

Figure 4.7-1 shows all urban land uses within a 1.5-mile radius of established fire stations. Buildout of the General Plan would result in development outside of the preferred response radius, including:

- *Northeast River/Loveridge.* Large Industrial and Regional Commercial parcels east of Loveridge Road.
- *Buchanan/Woodlands.* Proposed Hillside Low and Low Density Residential neighborhoods south of Buchanan Road.
- *Southwest Hills.* Sections of the Hillside Low, Low, and High Density Residential neighborhoods west of proposed San Marco Boulevard.

Additionally, provision of maximum roadway accessibility into the southern hills will ensure response time goals.

Mitigation Measures

The proposed General Plan provides policies targeted at ensuring adequate response times are maintained for all development within the City:

2-P-25 Minimize single-access residential neighborhoods in the hills; maximize access for fire and emergency response personnel.

11-P-24 Cooperate with Contra Costa County Fire Protection District (CCCFPD) to ensure that all new development is constructed within the 1.5-mile response radii from a fire station.

11-P-26 Cooperate with CCCFPD in obtaining a site for a new fire station (or replacement for Station 86) south of State Route 4 and west of Bailey Road.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.8 WATER, WASTEWATER AND SOLID WASTE

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding water, wastewater and solid waste, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 11: Public Facilities and Services (June 1998), available from the Pittsburg Community Development Department.

Water Provision

Pittsburg obtains raw water from the Contra Costa Water District (CCWD) through the Contra Costa Canal, which is a component of the Central Valley Project (CVP). CCWD's current contract for it's entire service area is for 195,000 acre feet per year (af/y), or 174 million gallons per day (mgd). However, this allocation is subject to regulatory or other temporary restrictions which may be imposed arising from drought or other conditions. In addition to its CVP contract, CCWD has negotiated water rights with a number of local districts and private entities, including the East Contra Costa Irrigation District. These agreements bring CCWD's total annual supply to 242,700 af/y. The City supplements its CCWD water supply with two wells, located at City Park and at Dover and Frontage Roads. Combined yield of both wells in Pittsburg is 1,500 af/y.

Water Supply System

Pittsburg operates its own water treatment plant and associated infrastructure facilities. The plant primarily serves customers within City limits, in addition to a small number of users outside the City, who must pay a surcharge to obtain services. Water service to Bay Point and other unincorporated areas is provided by California Cities Water Company.

The Pittsburg treatment plant currently operates at 16 to 18 mgd for City accounts. Although the plant has a maximum capacity of 32 mgd, State Health Department permitting and stringent water quality regulations limit plant operations to 24 mgd. Treated water is distributed throughout Pittsburg via a 122-mile system of pipelines, in addition to pump stations and seven reservoirs. The reservoirs hold 16.75 million gallons of water, which meet the minimum health and safety requirement of 50 gallons per capita per day (gpcd) for two days.

Historically, residential water consumption accounted for the largest proportion of customer connections in Pittsburg, followed by commercial users. In 1995, residential accounts represented 95 percent of total customer connections with 12,140 accounts. Commercial users made up approximately 4 percent with 462 accounts. Table 4.8-1 presents the distribution of water accounts per land use in 1995.

Table 4.8-1
Water Accounts: 1995, City of Pittsburg

Category	*1995*	*% of Total*
Residential	12,140	95.0%
Commercial	462	3.6%
Institutional	68	0.5%
Industrial	15	0.1%
Irrigation	98	0.8%
Total	12,783	100%

Source: 1995 Urban Water Management Plan

Water Conservation

Water conservation first became an issue during the 1976-77 drought, and then again with the 1991 drought. Initial conservation measures involved requiring the installation of water meters and increasing the use of drought-tolerant plants in public landscaping. In addition, residents voluntarily reduced water use. The City also implements various Best Management Practices (BMPs) aimed at water conservation, as a signatory to the Urban Water Management Council.

Pittsburg's current water conservation program includes education and public information, municipal water management programs, regulations involving landscaping and requirements for efficient water use during shortages, and an increased capacity of its water treatment plant. Six additional conservation measures are currently being implemented by the City, including a water rate structure to encourage conservation, stricter plumbing codes, public education, water-efficient landscaping, studying expanded reclaimed water usage, and a leak detection survey and repair program. Finally, the construction of the new DDSD Reclamation Plant will provide residential, business, and City-owned properties with recycled water supplies for landscaping.

Wastewater Disposal

Sanitary sewer service in the Pittsburg SOI is provided by the City and Delta Diablo Sanitation District (DDSD). The City maintains and owns the local sewage collection system, and DDSD owns and operates the collection system in Bay Point. DDSD also owns and operates regional interceptors and the sewage treatment plant located south of the Pittsburg-Antioch Highway in Antioch. DDSD's service area encompasses Pittsburg, Bay Point, and Antioch. Wastewater discharge is regulated by the California Regional Water Quality Control Board (RWQCB). Under RWQCB regulations, the bypass or overflow of wastewater from treatment plants and collection systems is prohibited.

Wastewater Collection and Treatment

The City's collection system consists of approximately 95 miles of sewer lines ranging in diameter from 6 to 36 inches, and one sewage lift stations. The DDSD treatment plant located north of Pittsburg-Antioch Highway, just east of Pittsburg City limits, has the capacity to treat approximately 16.5 mgd. The annual average flow treated in 1999 was 13.6 mgd. The DDSD has adopted a District Master Plan that includes phased treatment plant expansion to ultimately provide 24 mgd (average dry weather flow) capacity in order to accommodate anticipated General Plan buildout for the cities of Pittsburg, Antioch, and unincorporated Bay Point.

Wastewater Flow Deficiencies

Wastewater flow through the City's sewage collection system to the DDSD treatment plant, including average sewage flow, groundwater infiltration, and rainfall infiltration/inflow, is projected to outgrow current capacities. The City's trunk sewer system will not have adequate capacity to carry projected buildout flows. Most of these line deficiencies exist in the newer portions of the system south of State Route 4.

Solid Waste Disposal

Solid waste pickup and disposal for Pittsburg and a small portion of Bay Point is provided by Pittsburg Disposal Services. Allied Industries provides disposal services for the remaining areas of Bay Point. Residential and commercial solid waste is disposed at Potrero Hills Landfill, located east of Suisun City, while non-recyclable industrial waste is transported to Keller Canyon Landfill, located southeast of City limits within the Planning Area. These landfills replaced the now-closed Contra Costa Sanitary Landfill.

Potrero Hills Landfill, a regional waste disposal facility, primarily serves the central portion of Solano County. In addition, it serves a number of surrounding counties through contracts with private haulers, including Contra Costa County and Pittsburg. A Class III Landfill, it began operating in 1986 and has a current projected life of 17 to 20 years. Potrero Hills Landfill Company owns adjacent acreage that will be added to the existing facility as expansion becomes necessary. In 1996, 53 percent (194,157 tons) of waste disposed at Potrero Hills Landfill originated from the Contra Costa Recycling Center and Transfer Station located in Pittsburg. Of this amount, approximately 62,010 tons were from Pittsburg.

Keller Canyon Landfill, opened in 1990, is a Class II facility with a minimum 40-year lifespan. Of the 244 acres permitted for disposal, 40 acres are currently in use. Its service area includes Eastern and Central Contra Costa County. Pittsburg disposes approximately 3,000 tons of industrial solid waste annually at this site.

Curbside Recycling

A voluntary curbside recycling program is in place in Pittsburg. The program is operated by Pittsburg Disposal, which expanded in 1990 to serve 11,000 single-family households. Materials accepted for recycling include plastic, glass, aluminum, tin, and newspaper. Recyclables are picked up once a week alongside regular waste, then processed at a facility also owned by Pittsburg Disposal. In addition, yard waste collection services are provided every other week.

In 1990, the curbside recycling program diverted 10.5 percent (2,350 tons) of the residential waste stream and five percent of waste generated by all uses. The City's 1992 Source Reduction and Recycling Element (SRRE) includes short- and medium-term recycling objectives. The SRRE includes plans to establish additional recycling programs, such as recycling pick-up at institutional and educational facilities. Table 4.8-2 describes diversion rates for specific materials.

Table 4.8-2
Recycling Diversion Rates: 1990, City of Pittsburg

Material	*Diversion Rate*	*Tons*	*% of Waste Stream*
Newspaper	62%	1490	3.2%
Glass	53%	419	0.9%
PET Plastic	41%	31	0.07%
Aluminum Cans	49%	77	0.2%

Source: Pittsburg Source Reduction and Recycling Element, 1992

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Water demands that exceeded available supply or distribution capacity;
- Wastewater flows that exceeded collection and treatment capacity; or
- Solid waste levels that exceeded available disposal capacity.

ANALYSIS OF IMPACTS

Impact 4.8-a New development may increase demand for water, which may exceed the City's existing distribution and treatment capacities. *[Potentially significant]*

Population growth is the primary factor affecting the City's water demand. New development and intensification allowed under the proposed General Plan will result in increased demand for water. Such increases in demand for water supply, treatment, and distribution capacity is considered a *potentially significant* impact.

Using the water projection methodology in the Pittsburg Water System Master Plan (2000), Pittsburg is expected to need approximately 14.5 million gallons per day (mgd) of water by 2020. The Master Plan assumes a 1.6 percent annual growth rate for the City, with average use per person stabilizing at 180 gallons per capita per day (gpcd). As shown in Table 4.8-3, total demand is projected to reach 5,300 million gallons per year (mgy) by General Plan buildout. Current treatment capacity at the Pittsburg treatment plant is 32.0 mgd, while City accounts comprise approximately 11.0 mgd (year 2000). Therefore, existing treatment capacities should be adequate to accommodate water demand at General Plan buildout.

Table 4.8-3
Water Demand Projections, Pittsburg: 1990-2020

Year	Population	Average Demand per Day (mgd)*	Maximum Demand per Day (mgd)	Average Demand per Month (mgm)	Total Demand per Year (mgy)
1990	46,500	8.7	n/a	260	2,700
1995	51,500	8.8	n/a	265	3,000
2000	57,000	10.3	21.5	308	3,700
2005	62,200	11.2	23.5	342	4,100
2010	67,800	12.2	25.6	375	4,500
2015	73,900	13.3	27.9	408	4,900
2020	80,600	14.5	30.5	442	5,300

** Based on assumed 180 gallons per capita per day (gpcd).*
Source: Pittsburg Water System Master Plan, 2000.

The annual contract between the City and CCWD does not set an upper limit on allocation, but restrictions have been imposed during drought conditions in the past. Although Pittsburg's water treatment facilities have adequate capacity to service the buildout population, water supply sources may be limited if California's population continues to grow and drought conditions prevail. Construction of the new DDSD Reclamation Plant will provide Pittsburg residents with recycled water sources for landscape irrigation, which significantly increases peak month demand. In the unlikely event that CCWD cannot meet Pittsburg's raw water demand, several other alternatives have been considered: a) conjunctive use of surface and groundwater; b) expanded water reclamation; and c) water transfers.

Mitigation Measures

Infrastructure improvements and water conservation efforts throughout the General Plan timeframe should ensure that adequate water capacities are available to all new development. Proposed General Plan policies targeted at ensuring adequate water distribution and treatment capacities include:

11-P-2 Implement, as needed, replacements and/or expansions to the existing system of water mains through the City's Capital Improvement Program.

11-P-4 Work with CCWD to develop a program ensuring adequate provision of raw water supplies during potential emergency water demands.

11-P-8 Develop and implement a Recycled Water Ordinance, requiring the installation and use of recycled water supplies from the new DDSD Reclamation Plant.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.8-b New development may generate wastewater flows that exceed collection and treatment capacities available through the City and DDSD. *[Potentially significant]*

Implementation of the proposed General Plan would generate approximately 7.7 million gallons per day (mgd) in total wastewater flows, as shown in Table 4.8-3. Current deficiencies exist within the wastewater collection system; therefore substantial expansion of the system must occur in conjunction with future development. Additional expansion of the DDSD treatment plant will also be necessary, as planned by DDSD, to accommodate projected wastewater flows at buildout.

Table 4.8-3
Wastewater Flow Projections, City of Pittsburg

Land Use	*Unit*	*# of Units at Buildout*	*Unit Flow Factor (gpd/unit)*	*Total GPD at Buildout*
Single Family	dwelling units	17,056	220	3,752,305
Multi-Family	dwelling units	11,958	170	2,032,831
Commercial	acre	839	1,000	839,000
Industrial	acre	1,429	600	857,400
Schools	student	15,860	15	237,900
Total				**7,719,437**

Source: Pittsburg Collection System Master Plan, *September 1990 and Dyett and Bhatia, 2000.*

Mitigation Measures

Treatment plant expansion, infrastructure and lift station improvements, and use of reclaimed water under the General Plan should ensure that wastewater treatment capacities are available to all new development. Proposed General Plan policies targeted at ensuring adequate wastewater collection and treatment capacities include:

11-P-9 Work with Delta Diablo Sanitation District (DDSD) in planning the expansion of the wastewater treatment plant.

11-P-10 Pursue replacement and/or expansion of the City's trunk sewer system, as demand increases, particularly in newer portions of the system south of State Route 4.

11-P-13 Work with Delta Diablo Sanitation District (DDSD) to promote the use of recycled water for irrigation of large planted areas, such as business/industrial campus projects, City parks, and street medians .

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.8-c New development may generate additional solid waste, as well as demand for recycling and composting services, that may exceed existing disposal capacities. *[Potentially significant]*

The City's Source Reduction and Recycling Element (SRRE) contains adopted City policies aimed at reducing the amount of solid waste disposed of at local landfills. Generation of solid waste streams above existing capacity is considered a *potentially significant* impact. In 1990, 60% of newspapers and 50% of both glass and aluminum were diverted from the waste stream. Expansion of recycling programs will continue to reduce the local solid waste stream.

Although recycling efforts will continue, local landfills will also have to accommodate increases in solid waste due to increased development. With 40 acres of the landfill site currently being used, only 16 percent of Keller Canyon Landfill's capacity is currently being used. Buildout of the General Plan will not cause additional waste disposal levels exceeding available capacity.

Mitigation Measures

In addition to available capacity at Keller Canyon Landfill, increased recycling efforts will ensure that solid waste disposal capacity is available to all new development. Proposed General Plan policies targeted at ensuring adequate solid waste collection and disposal capacity include:

11-P-18 Work with Pittsburg Disposal Services to increase participation in curbside recycling programs for residential neighborhoods.

11-P-19 Promote the importance of recycling industrial and construction wastes.

11-P-21 Encourage builders to incorporate interior and exterior storage areas for recyclables into new or remodeled residential, commercial, and industrial structures.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.9 BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding biological resources, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 12: Environmental Resources and Conservation (June 1998), available from the Pittsburg Community Development Department.

Pittsburg is located on the southern border of the Suisun Bay/Sacramento River Delta, in the northern portion of Contra Costa County, within the California Floristic Province. The area has a Mediterranean climate and supports a mosaic of grasslands, wetland communities, and scattered stands of trees. Principal land uses within the Planning Area include industrial, residential, commercial, and open space.

Historic vegetation of the area included native grasslands, oak woodlands, riparian communities, and coastal salt and brackish marshes. Human intervention and development has changed the landscape, restricting the natural vegetation in the Planning Area. The southern third of the Planning Area, approximately, is largely undeveloped open space with large expanses of rolling grassy hills, while the northern edge affronts salt and brackish marshlands at the Sacramento River and New York Slough. These natural areas are known to support populations of several threatened and endangered plant and animal species. Areas of particular biological concern within the Planning Area include Browns Island Regional Preserve and the Delta edge, Stoneman Park, and the 3,700-acre Black Diamond Mines Regional Preserve and environs.

Vegetation

The Planning Area hosts an abundance of vegetation types, with a diverse number of plant species. Vegetative communities and habitats occurring within the Planning Area can be divided into two categories based on habitat sensitivity:

- *Level One* communities are those that are or most closely resemble (in form and function) native habitats. Within the Planning Area these include California annual grassland, salt marsh-pickleweed series, seasonal wetland, riparian woodland, and open waters of the Suisun Bay.
- *Level Two* communities include areas that have been significantly altered by humans, and include development and landscaping. These areas provide minimal habitat for native vegetation and wildlife.

The primary threat to Pittsburg's vegetative communities is further intrusion of urban development into wildlife habitats. Non-native vegetation originally introduced as landscaping can also overtake native species, imposing upon habitat for threatened and endangered plant and animal species. Last, toxic contaminants from commercial or industrial facilities could result in risks to sensitive waters and nearshore communities.

Terrestrial and Aquatic Wildlife Use

Grassland and scrub habitat attracts reptiles and amphibians, as well as a variety of small mammals, such as squirrels and rabbits. A few seed eating birds nest in grasslands, while insect eaters use the habitat for foraging only. Small rodents attract raptors (birds of prey), which use stands of trees within the Planning Area for nesting, and resting and perching. Deer use grasslands for grazing and, if

the grass is tall enough, for cover at night. Wildlife associated with developed/landscaped and ruderal (weedy) areas are more tolerant to human disturbance, such as raccoons, skunks, opossum, and various birds.

Fresh emergent wetlands are generally considered one of the most productive habitats for wildlife because they offer water, food and cover. Habitat modification in the northern Planning Area has severely reduced the vegetative structure of the habitat and its overall value for wildlife. Reptiles and amphibians are present, and birds may occasionally use these areas for foraging and nesting. Mammals common in this habitat include raccoons foraging on eggs and invertebrates, striped skunk, and gray fox.

Good quality native wetlands habitat occurs in the tidal salt marshes along the Planning Area's Bay fringe. The rich plankton of the area supports, directly or indirectly, large populations of seabirds and marine mammals that inhabit the California coastal environment. The estuarine habitat of Suisun Bay is a major feeding and resting area for migratory birds along the Pacific Flyway. Approximately 151 avian species are typically observed using the Bay over the course of one year. Mudflats also provide foraging habitat for shore and wading birds. Six species of egrets and herons are regularly found in this habitat. Pelicans migrate through the area, and in recent years have been present in summer and fall. The Delta is also an important migration route and nursery ground for a number of ecologically and economically important fish species usually those more abundant in shallow sandy and silty bottom areas.

Special Status Species Within the Planning Area

A list of special status plant and animal species reported to occur within the vicinity of Pittsburg was compiled on the basis of data in the Natural Diversity Database (California Department of Fish and Game, 1997), consultation with California Native Plant Society literature, consultation with the U.S. Fish and Wildlife Service, and biological literature of region (Table 4.9-1). This list includes at least 19 special status wildlife and 29 special status plant species.

Table 4.9-1
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

Common Name	*Scientific Name*	*Status [a] (Fed/CA/ CNPS)*	*General Habitat[b] (Habitat Type Abbreviation)*
Invertebrates			
Antioch dunes anthicid beetle	*Anthicus antiochensis*	FSS/--	Presumed extinct – known only from the Antioch Dunes (D)
San Joaquin dune beetle	*Coelus gracilis*	FSS/--	Fossil dunes along the western edge of San Joaquin County; extirpated from Antioch Dunes; requires sandy substrates. (D)
Molestan blister beetle	*Lytta molesta*	FSS/--	Central Valley from Contra Costa to Kern and Tulare Counties; collected at Brentwood. (CG/CH)
Antioch cophuran robberfly	*Cophura hurdi*	FSS/--	Only specimen known collected at Antioch. (CG/CH)
Antioch efferian robberfly	*Efferia antiochi*	FSS/--	Not available. (UK)
Yellow banded andrenid bee	*Perdita hirticeps luteocincta*	FSS/--	Visits flowers of *Gutierrezia californica*. (CG)

Table 4.9-1
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

Common Name	*Scientific Name*	*Status [a] (Fed/CA/ CNPS)*	*General Habitat[b] (Habitat Type Abbreviation)*
Antioch andrenid bee	*Perdita scituta antiochensis*	FSS/--	Visits flowers of *Eriogonum*, *Gutierrezia californica*, *Heterotheca grandiflora*, and *Lessingia glandulifera*. (CG)
Antioch multilid wasp	*Myrmosula pacifica*	FSS/--	Not available. (UK)
Antioch specid wasp	*Philanthus nasilis*	FSS/--	Known only from the Antioch Dunes. (D)
Langes metalmark butterfly	*Apodemia mormo langei*	FE/--	Stabilized dunes along the San Joaquin River. Endemic to the Antioch Dunes; primary host plant is *Eriogonum nudum* var. *auriculatum*. (D)
Middlekaufs shieldback katydid	*Idiostatus middlekaufi*	FSS/--	Not available. (UK)
Reptiles			
Western pond turtle	*Clemmys marmorata*	FSS/CSC	An aquatic turtle of streams, ponds and marshes; requires basking sites. Potential habitat occurs in large drainages and preserves in the Planning Area. (OW/FW)
Alameda whipsnake	*Masticophis lateralis euryxanthus*	FT/CT	Valley foothill hardwood habitat; south-facing slopes with a mosaic of shrubs, oaks and grasses. (RW/CG)
Giant garter snake	*Thamnophis gigas*	FT/CT	Freshwater and low-gradient streams; highly aquatic. The planning area occurs on the fringe of this species' range. (RW/FW)
Amphibians			
California tiger salamander	*Ambystoma californiense*	FC/CSC	Annual grasslands with underground refugia & seasonal water for breeding. Suitable habitat includes the grassland hills in the southern portion of the planning area. (FW/CG)
California red-legged frog	*Rana aurora draytonii*	FT/CSC	The Planning Area's wetlands provide only limited habitat for this species. No occurrences of red-legged frog have been reported from the Planning Area. (FW/RW)
Mammals			
San Joaquin kit fox	*Vulpes macrotis mutica*	FE/CT	Reported as occasional at Black Diamond Mines Regional Preserve and environs. (CG)
Salt marsh harvest mouse	*Reithrodontyomys raviventris*	FE/CE	Salt marshes along the Planning Area's northern fringe provide suitable habitat. (SM/BM)
San Joaquin pocket mouse	*Perognathus inornatus inornatus*	--/CSC	Grasslands and blue oak savannas; friable soils. Suitable habitat includes the grassland hills in the southern portion of the planning area. (CG)
Berkeley kangaroo rat	*Dipodomys heermanni*	--/SA	Open grassy hilltops and clearings in chaparral; require fine, deep, well-drained soils. Suitable habitat includes the grassland hills in the southern portion of the planning area. (CG)
Birds			
Great blue heron	*Ardea herodias*	--/SA	Local salt marshes provide foraging habitat for herons. (RW/FW/BW)

Table 4.9-1
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

Common Name	*Scientific Name*	*Status [a] (Fed/CA/ CNPS)*	*General Habitat[b] (Habitat Type Abbreviation)*
Short-eared owl	*Asio flammeus*	--/SA	Local salt marshes provide foraging habitat for this owl. (SM/BW)
Northern harrier	*Circus cyaneus*	--/CSC	Suitable nesting habitat could include grassy meadows and margins within the planning area. (RW/CG)
Salt marsh common yellowthroat	*Geothlypis trichas sinuosa*	FSS/CSC	Local marshes provide suitable foraging habitat for this yellowthroat. (FW/BW/SM)
California black rail	*Laterallus jamaicensis coturniculus*	FSS/CT	Salt marshes on the eastern fringe of the Planning Area provide habitat for rails. (SM/MF/BW)
California clapper rail	*Rallus longirostris obsoletus*	FE/CE	Cordgrass salt marshes on the eastern fringe of the Planning Area provide habitat for rails. (SM/MF/BW)
California least tern	*Sterna antillarum browni*	FE/CE	Colonial breeder on bare or sparsely vegetated, flat substrates. Nests near the Pittsburg PG&E plant. (SM/MF/BW/OW)
California brown pelican	*Pelecanus occidentalis californicus*	FE/CE	California brown pelican is a seasonal visitor to the region. (OW)
Tricolored blackbird	*Agelaius tricolor*	FSS/CSC	Nests colonially near fresh or brackish water marshy areas with dense tules, cattails or thickets. Brackish marshes along the Delta provide suitable habitat for this species. (FW/BW/RW)
White-tailed kite	*Elanus leucurus*	--/SA	Grassland foothills with scattered oaks for nesting and perching, and open grasslands, meadows or marshlands for foraging. Suitable habitat includes the grassland hills in the southern portion of the planning area. (CG/RW)
Suisun song sparrow	*Melospiza melodia mazillaris*	FSS/CSC	Resident of brackish water marshes on Suisun Bay. Frequents cattails, tules, and pickleweed vegetation, and also vegetative tangles in sloughs. Brackish marshes along the Delta provide suitable habitat for this species. (BW/FW/SM)
Plants			
Large-flowered fiddleneck	*Amsinckia grandiflora*	FE/CE/1B	Valley and foothill grasslands, open oak woodland, on light soils. Known from only three natural occurrences. (CG)
Mt. Diablo manzanita	*Arctostaphylos auriculata*	--/--/1B	Canyons and slopes, on sandstone, in chaparral. (CH)
Alkali milk-vetch	*Astragalus tener* var. *tener*	--/--/1B	Alkali playa, valley and foothill grassland, vernal pools. Low ground or alkali flats and flooded lands; in annual grassland, playas or vernal pools. (CG/FW)
Suisun Marsh aster	*Aster lentus*	FSS/--/1B	Marshes and swamps, both freshwater and brackishwater, in the San Joaquin and Sacramento River Delta. (FW/BW)
Heartscale	*Atriplex cordulata*	FSS/--/1B	Saline or alkaline places in valley and foothill grassland or alkali scrub. (SP)
San Joaquin spearscale	*Atriplex joaquiniana*	FSS/--/1B	In seasonal alkaline meadows or alkali sink scrub. (SP)

Table 4.9-1
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

Common Name	*Scientific Name*	*Status [a] (Fed/CA/ CNPS)*	*General Habitat[b] (Habitat Type Abbreviation)*
Big tarplant	*Blepharizonia plumosa* ssp. *plumosa*	--/--/1B	Dry hills and plains in valley and foothill grassland. (CG)
Soft bird's-beak	*Cordylanthus mollis* ssp. *mollis*	FE/CR/1B	Coastal salt marsh; within the tidal zone. (SM/BM)
Dwarf downingia	*Downingia pusilla*	--/--/2	Vernal pools in valley and foothill grasslands. (FW)
Mt. Diablo buckwheat	*Eriogonum truncatum*	--/--/1A	Dry, exposed clay or rock surfaces; 1000-2000 ft.; chaparral, coastal scrub, valley and foothill grasslands. (CG)
Contra Costa wallflower	*Erysimum capitatum* ssp *angustatum*	FE/CE/1B	Stabilized dines near Antioch along the San Joaquin River. (D)
Diamond-petaled poppy	*Eschscholzia rhombipetala*	FSS/--/1A	Valley and foothill grassland; Inner Coast Ranges. (CG)
Stink bells	*Fritillaria agrestis*	--/--/4	Valley and foothill grasslands, oak woodlands; on clay flats; sometimes on serpentine. (CG)
Fragrant fritillary	*Fritillaria liliacea*	FSS/--/1B	Coastal scrub, valley and foothill grassland, coastal prairie; on heavy clay soils, often on ultramafic soils. (CG)
Diablo rock-rose	*Helianthella castanea*	FSS/--/1B	Openings in chaparral and broadleaved upland forest. (SP)
Brewer's dwarf-flax	*Hesperolinon breweri*	FSS/--/1B	Grassland, open oak woodland, and openings in chaparral, often on serpentinite. SP)
California hibiscus	*Hibiscus lasiocarpus*	--/--/2	Moist, freshwater-soaked river banks and low peat islands in sloughs. (FW/RW)
Contra Costa goldfields	*Lasthenia conjugens*	FC/--/1B	Vernal pools and moist, somewhat alkaline places in valley and foothill grassland; known from only five extant sites. (SP)
Delta tule-pea	*Lathyrus jepsonii var. jepsonii*	FSS/--/1B	Freshwater and brackishwater marshes. (BW/SM)
Mason's lilaeopsis	*Lilaeopsis masonii*	FSS/CR/1B	Riparian scrub and freshwater or brackishwater marshes; in tidal zones in muddy or silty soil formed through river deposition or river bank erosion. (FW/BW/RW)
Delta mudwort	*Limosella subulata*	--/--/2	Mud banks of the Delta in marshy or scrubby riparian vegetation. (BW/FW)
Showy madia	*Madia radiata*	--/--/1B	Grassy slopes in valley and foothill woodland and cismontane woodland. (CG)
Colusa grass	*Neostapfia colusana*	FPT/CE/1B	Relatively deep vernal pools. (FW)
Antioch Dunes evening-primrose	*Oenothera deltoides* ssp. *howellii*	FE/CE/1B	Known only from remnant river bluffs and partially stabilized sand dunes near Antioch. (D)
Mt. Diablo phacelia	*Phacelia phacelioides*	FSS/--/1B	Chaparral cismontane woodland, on rock outcrops and talus slopes, 2,000-3,800 ft. (SP)

Table 4.9-1
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

Common Name	*Scientific Name*	*Status [a] (Fed/CA/ CNPS)*	*General Habitat[b] (Habitat Type Abbreviation)*
Rock sanicle	*Sanicula saxatilis*	FSS/SR/1B	Broadleafed upland forest, chaparral; bedrock outcrops and talus slopes 2,000-4,100 ft. (SP)
Rayless ragwort	*Senecio aphanactis*	--/--/1B	Cismontane woodland and coastal scrub; 90-2,400 ft. (SP)
Most beautiful jewelflower	*Streptanthus albidus* ssp. *peramoenus*	FSS/--/1B	Chaparral, valley and foothill grassland; serpentine outcrops on ridges and slopes; 450-3,200 ft. (SP)
Caper-fruited tropidocarpum	*Tropidocarpum capparideum*	--/--/1A	Alkaline hills in valley and foothill grassland; last seen in 1889. (SP)

(a) Status Codes:

FEDERAL (U.S. Fish and Wildlife Service)

FE = Listed as Endangered (in danger of extinction) by the Federal Government.

FT = Listed as Threatened (likely to become endangered within the foreseeable future) by the Federal Government.

FPE/FPT = Proposed for Listing as Endangered or Threatened.

FC = Candidate information now available indicates that listing may be appropriate.

FSS = Former category 2 candidates for listing as threatened or endangered. Now unofficially considered federal sensitive species.

FP = Fully Protected by the Marine Mammal Protection Act.

BEPA = Bald Eagle Protection Act (1940) (50 CFR 22).

STATE (California Department of Fish and Game)

CE = Listed as Endangered by the State of California.

CT = Listed as Threatened by the State of California.

CR = Listed as Rare by the State of California (plants only).

CSC = California Species of Special Concern; used to track animal species with declining breeding populations in California.

SA = Considered a Special Animal by the California Department of Fish and Game.

3503.5=Protection for nesting species of Falconiformes (hawks) and Strigiformes (owls) under California Fish and Game Code.

California Native Plant Society

List 1A=Plants presumed extinct in California.

List 1B=Plants rare, threatened, or endangered in California and elsewhere.

List 2= Plants rare, threatened, or endangered in California but more common elsewhere.

List 3= Plants about which more information is needed.

List 4= Plants of limited distribution ("watch list").

(b) Habitat Type Abbreviations:

SM = Salt marsh
MF = Mud flat
OW = Open water
FW = Freshwater wetland
BW = Brackish water wetland
RW = Riparian woodland
CG = California annual grassland
D = Dunes
CH = Chaparral/coastal scrub habitat
UK = Unknown
SP = Specific habitat information provided in text

Source: California Department of Fish and Game, 1997; California Native Plant Society, 1995.

Conservation Areas

The Planning Area is unique in that it contains two regional preserves: the Browns Island Regional Shoreline and the Black Diamond Mines Regional Preserve. The East Bay Regional Park District, which manages both areas, seeks to conserve and enhance remaining natural Delta shoreline habitat at Browns Island and grasslands habitats found at Black Diamond Mines.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Substantially degraded sensitive habitat areas and/or special status species;
- Reductions in threatened, endangered or special-status species populations; or
- Uncontrolled spread on invasive, non-native plant species into natural habitat areas.

ANALYSIS OF IMPACTS

Impact 4.9-a Expansion of urban land uses under the General Plan may result in loss of sensitive habitat areas. *[Potentially significant]*

Development proposed under the General Plan has the potential to affect sensitive habitat areas and/or special status species that are known to occur or have potential to occur within the Planning Area. Direct impacts may include habitat destruction, degradation, or modification during both construction and operational phases of proposed development. Such loss of sensitive habitat areas is considered a *potentially significant* impact.

The California annual grasslands within the Planning Area provide habitat areas for many animal and plant species. Construction of new urban development within these grasslands will reduce the amount of natural habitat areas available to existing species. Development along creeks and vernal pools will also reduce available riparian habitat areas. Urban runoff can be particularly harmful to water quality in sensitive wetlands areas, and degradation of plant species within creeks and wetlands in turn leads to reduction in animal species populations. Figure 4.9-1 shows the areas of biological habitat planned for urban development, including:

- *Northeast River.* Industrial parcels between the BNSF railroad tracks and the shoreline are considered Seasonal wetlands/grasslands, and Dowest Slough is considered Fresh-brackish water marsh/riparian woodland.
- *Loveridge.* Large Industrial and Regional Commercial parcels north of State Route 4 are considered Seasonal wetlands/grasslands, and Dowest Slough is considered Fresh-brackish water marsh/riparian woodland.
- *Downtown.* Several Downtown Low Density Residential blocks the within Marina Walk subdivision are considered Seasonal wetlands/grasslands.
- *West Central.* Business Commercial and Medium Density Residential (mobile home park) uses along Willow Pass Road are considered Seasonal wetlands/grasslands.
- *West Leland.* Large school site at Range Road and West Leland Road is considered Seasonal wetlands/grasslands.

- *Buchanan.* Vacant land slated for Hillside Low and Low Density Residential development is considered California annual grassland series, with intermittent Seasonal wetlands/grasslands (creeks).
- *Woodlands.* Vacant land slated for Hillside Low and Low Density Residential development is considered California annual grassland series, with intermittent Seasonal wetlands/grasslands (creeks). Kirker Creek, which runs adjacent to proposed neighborhoods, is considered Fresh-brackish water marsh/riparian woodland.
- *Southwest Hills.* Vacant hills within this subarea are considered California annual grassland series; land uses proposed under the General Plan include Business Commercial, Community Commercial, and High, Medium, Low, and Hillside Low Density Residential.

Mitigation Measures

Conservation efforts proposed by the General Plan will ensure that habitat areas for special-status species are protected from destruction. Additionally, smaller open space areas will be preserved to provide nesting and foraging areas for more common native species. Proposed General Plan policies targeted at minimizing degradation of sensitive habitat areas include:

9-P-1 Cooperate with State and federal agencies to ensure that development does not substantially affect special status species, as listed in Table 9-1. Conduct assessments of biological resources prior to approval of development within 300 feet of creekways, wetlands, or habitat areas of identified special status species, as depicted in Figure 9-1.

9-P-2 Establish an on-going program to remove and prevent the re-establishment of invasive species and restore native species as part of development approvals on sites that include ecologically sensitive habitat.

9-P-5 Work with Contra Costa County, the East Bay Regional Park District, and the City of Antioch, to expand the regional open-space system in the southern hills to preserve California annual grasslands habitat.

9-P-7 During the design of hillside residential projects, encourage clustering of housing to preserve large, unbroken blocks of open space, particularly within sensitive habitat areas. Encourage the provision of wildlife corridors to ensure the integrity of habitat linkages.

9-P-9 Establish creek protection areas along riparian corridors, extending a minimum of 50 feet laterally from the tops of streambanks. Setback buffers for habitat areas of identified special status species and wetlands may be expanded to 150 feet, as needed to preserve ecological resources. No development should occur within these buffer areas, except as part of greenway enhancement (for example, trails and bikeways).

9-P-11 Ensure that special-status species and sensitive habitat areas are preserved during redevelopment and intensification of industrial properties along the Suisun Bay waterfront. Limit dredging and filling of wetlands and marshlands, particularly adjacent to Browns Island Preserve.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

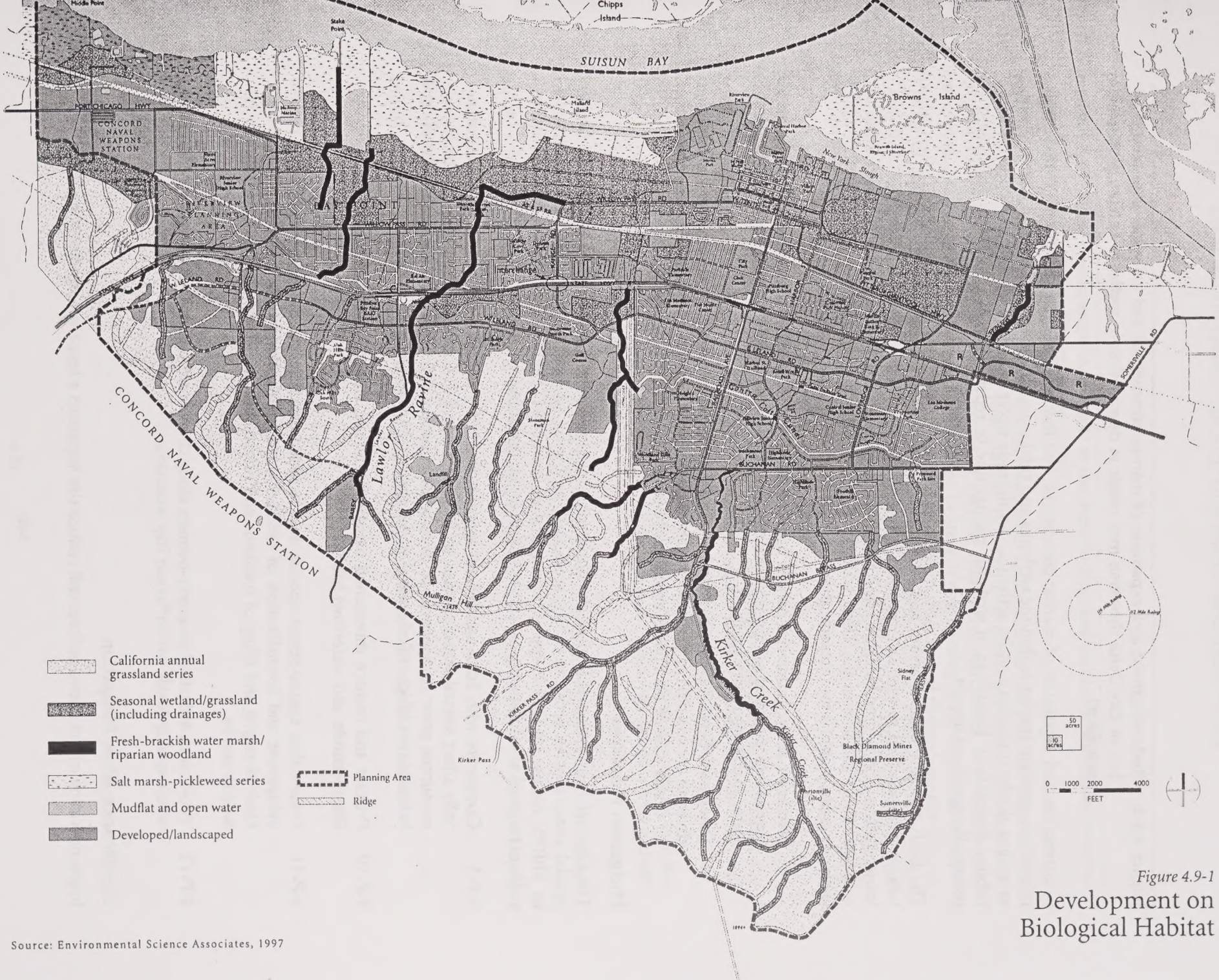


Figure 4.9-1

Development on Biological Habitat

Source: Environmental Science Associates, 1997

Impact 4.9-b Redevelopment and expansion of marine commercial and industrial uses along the Suisun Bay/Delta shoreline may result in degradation of wetlands habitat. *[Potentially significant]*

Construction and expansion of marine commercial and industrial uses fronting New York Slough may affect sensitive species within the wetlands and tidal marshes. Runoff from urban development, as well as the boat marina and its activities, can degrade water quality in the Bay and contribute to habitat destruction. Reduction of wetlands habitat due to redevelopment activities is considered a *potentially significant* impact.

The fresh and salt-water marshes and wetlands areas along the Delta waterfront provide foraging habitat for such bird species as Great blue heron, Short-eared owl, California black rail, California brown pelican, Tricolored blackbird, and Suisun song sparrow. Redevelopment and intensification of land uses along the Suisun Bay/Delta waterfront may disrupt these sensitive species. The following wetlands areas, planned for intensification under the General Plan, are shown in Figure 4.9-1:

- *Northeast River.* Industrial parcels between the BNSF railroad tracks and the shoreline are considered Seasonal wetlands/grasslands, and Dowest Slough is considered Fresh-brackish water marsh/riparian woodland.
- *Downtown.* Several Downtown Low Density Residential blocks the within Marina Walk subdivision are considered Seasonal wetlands/grasslands. The proposed Marine Commercial center is also located on a parcel considered Seasonal wetlands/grasslands.

Mitigation Measures

The General Plan proposes limited development with riparian and wetlands areas that may house special-status species. Sensitive habitat areas, such as Browns Island, are being preserved and restored by EBRPD for use by aquatic species and migrating waterfowl. The proposed General Plan provides policies targeted at minimizing loss of wetlands habitat, including:

9-P-1 Cooperate with State and federal agencies to ensure that development does not substantially affect special status species, as listed in Table 9-1. Conduct assessments of biological resources prior to approval of development within 300 feet of creekways, wetlands, or habitat areas of identified special status species, as depicted in Figure 9-1.

9-P-10 Protect and restore threatened natural resources, such as estuaries, tidal zones, marine life, wetlands, and waterfowl habitat.

9-P-11 Ensure that special-status species and sensitive habitat areas are preserved during redevelopment and intensification of industrial properties along the Suisun Bay waterfront. Limit dredging and filling of wetlands and marshlands, particularly adjacent to Browns Island Preserve.

9-P-12 Work with industrial property-owners along the waterfront to improve urban runoff and water quality levels within Suisun Bay wetlands.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.9-c New development may result in the introduction and spread of non-native invasive plant species. *[Potentially significant]*

The spread of non-native invasive plant species throughout California has had a drastic effect on the natural landscape. Several species and communities (for example, native grasslands, Mission blue butterfly habitat) are threatened by the spread of invasive non-native plants such as French boom, eucalyptus, and pampas grass. Through landscaping in areas of new development, additional invasive species could be introduced. Existing invasive species could be further spread throughout the area, as construction and grading results in the removal of existing vegetation. Creeks have a greater concentration of native plants and would be particularly vulnerable to invasive species. The introduction and spread of non-native invasive plant species throughout the Planning Area is considered a *potentially significant* impact.

Mitigation Measures

The propagation of native species within landscaped areas in development projects will reduce the spread of non-native species and contribute habitat areas for native wildlife species. Proposed General Plan policies targeted at minimizing spread of invasive non-native plant species include:

9-P-2 Establish an on-going program to remove and prevent the re-establishment of invasive species and restore native species as part of development approvals on sites that include ecologically sensitive habitat.

9-P-3 Participate in the development of a regional Habitat Conservation Plan (HCP) for preservation of native species throughout Contra Costa County.

9-P-8 As a condition of approval of new development, ensure revegetation of cut-and-fill slopes with native plant species.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.10 HISTORICAL AND CULTURAL RESOURCES

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding historical and cultural resources, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 8: Historical and Cultural Resources (June 1998), available from the Pittsburg Community Development Department.

Pittsburg is the site of a number of historical and archeological resources. While only about one third of the Planning Area has been studied for cultural resources, five archeological sites are known to exist. In addition, historical resources from Pittsburg's coal and steel eras are still present.

Historical Resources

Pittsburg played an important role in the history of Contra Costa County. As one of the earliest industrial centers in the County, the City's historical resources encompass a broad range of activities. In addition to individual historical sites and events, the New York Landing Historical District offers a physical record of the City's past. Resources from various aspects of the City's history reflect its role in industry, transportation, military, and entertainment:

- *Industry.* The discovery of coal in the 1850s served as the impetus for Pittsburg's growth as an industrial community; Black Diamond Mines was the first source of fossil fuel in California. In 1916, production began at the Dow Chemical Company plant, which has since become the largest non-refinery chemical production complex in the western United States.
- *Transportation.* Early railroads were constructed along the Pittsburg-Antioch Highway to transport coal from Black Diamond Mines to the Sacramento River Delta for shipment. As rail technology improved, new facilities were built to handle passengers and cargo.
- *Military.* Built in 1942, Camp Stoneman served as a staging and embarkation facility for troops during World War II and the Korean conflict.
- *Entertainment.* The Black Diamond Theater (1909) and the Palace Theater (1910), both on York Street, were the first theaters to present movies in Contra Costa County. Vogue Theater (circa early 1930's) on Railroad and Central Avenues is also historically significant.

New York Landing Historical District

To recognize and preserve the unique historical resources in Pittsburg, the City established the New York Landing Historical District in 1981. District boundaries were determined via research into the history and architectural significance of buildings in the area. Buildings in the Historical District were constructed between 1914 and 1930, and reflect the architectural styles prevalent during that time period. Some structures, while not considered significant in and of themselves, enhance the overall character of the district.

The Historical District is located at the core of Downtown Pittsburg. Railroad Avenue forms the central spine of the district, which has the following boundaries: Third Street to the north, Sixth Street to the south, Cumberland Street to the east, and Black Diamond Street to the west. Table 4.10-1 and Figure 4.10-1 detail Downtown's historical resources. This area is associated with many significant historical events, including the Rancho Los Medanos land grant, the first post office in Contra Costa County (built in the 1840s and initially located at Second and Black Diamond Streets), and sites of early fishing canneries, steamboat shops (for loading coal) and steel mills.

Table 4.10-1
Pittsburg Historical Resources

#	*Location**	*Name*	*Date Constructed*	*National Register Status*	*Building Condition*
	E. Third St.	New York Landing Historical District		Eligible for Separate Listing	
1	150, 160 E. Third St.	Greenberg Building	1925	Historical District Contributor	refurbished
2	190 E. Third St.	Green Building	1925	Historical District Contributor	refurbished
3	200 E. Third St.	Liberty Hotel	1925	Historical District Contributor	refurbished
4	10 E. Fourth St.	Burlessas Building	1922	Historical District Contributor	refurbished
5	515 Railroad Ave.	Post Dispatch	1924	Local Listing Only	refurbished
6	153 E. Fourth St.	King Parker Building	1929	Historical District Contributor	existing
7	163 E. Fourth St.	Montgomery Ward Building	1929	Historical District Contributor	refurbished
8	190 E. Fourth St.	Aiello Building	1923	Historical District Contributor	existing
9	501–509 Railroad Ave.	Post Office Building	1930	Local Listing Only	refurbished
10	24 E. Fifth St.	Scampini Building	1925	Historical District Contributor	existing
11	510 Black Diamond St.	Lepori Building	1924	Historical District Contributor	refurbished
12	348 Cumberland St.	Last Chance Building	1926	Historical District Contributor	refurbished
13	301 Railroad Ave.	National Building	1922	Historical District Contributor	refurbished
14	306 Railroad Ave.	Martinetti Building	1914	Historical District Contributor	refurbished
15	323 Railroad Ave.	National Dollar Store	1924	Historical District Contributor	refurbished
16	324 Railroad Ave.	Lazio Building	1924	Historical District Contributor	refurbished
17	356 Railroad Ave.	Royce Building	1914	Historical District Contributor	existing
18	368 Railroad Ave.	Demetrakopulos Building	1914	Historical District Contributor	existing
19	371 Railroad Ave.	California Theater	1920	Historical District Contributor	façade rehab only
20	395 Railroad Ave.	Sols Clothing Store	1920	Historical District Contributor	refurbished
21	415 Railroad Ave.	Contra Costa County Bank	1921	Historical District Contributor	refurbished
22	430 Railroad Ave.	Bank of America	1921	Historical District Contributor	refurbished
23	485 Railroad Ave.	Woult & Ury Building	1926	Historical District Contributor	refurbished
24	W. Eighth St.	Black Diamond School	1914	May Become Eligible	existing
25	E. Ninth St.	Pittsburg 7th Day Adventist Church	1919	Appears Eligible	refurbished
26	W. Eighth St.	St. Peter Martyr Church	1925	Appears Eligible	existing
27	Black Diamond Wy.	Coulter Pine	—	Local Listing Only	
28	Buchanan Rd.	Fages Crespie Turnback Camp	1772	Local Listing Only	
29	Harbor St.	Camp Stoneman Military Chapel	1942	Local Listing Only	
30	Nortonville Rd.	Mine Shafts	1850	Local Listing Only	
31	Nortonville Rd.	Latimer Ranch & Home	1850	Local Listing Only	
32	Pittsburg-Antioch Hwy.	Pittsburg Mine Railroad	1866	Local Listing Only	
33	Railroad Ave.	Camp Stoneman Gates	1942	Local Listing Only	

** Numbered resources 1-26 correspond to Figure 4.10-1.*

Source: California Office of Historic Preservation, 1997.

Source: California Office of Historic Preservation, 1997; New York Landing Historical District

Figure 4.10-1

Historic Resources

Archeological Resources

The Pittsburg Planning Area encompasses a number of environmental settings, including those where archeological sites may be found. Most Native American archeological sites in the Pittsburg area are in the form of small to large shell middens, some of which may contain human remains. These sites tend to be situated on alluvial flats and along historic bay margins, as well as near sources of water.

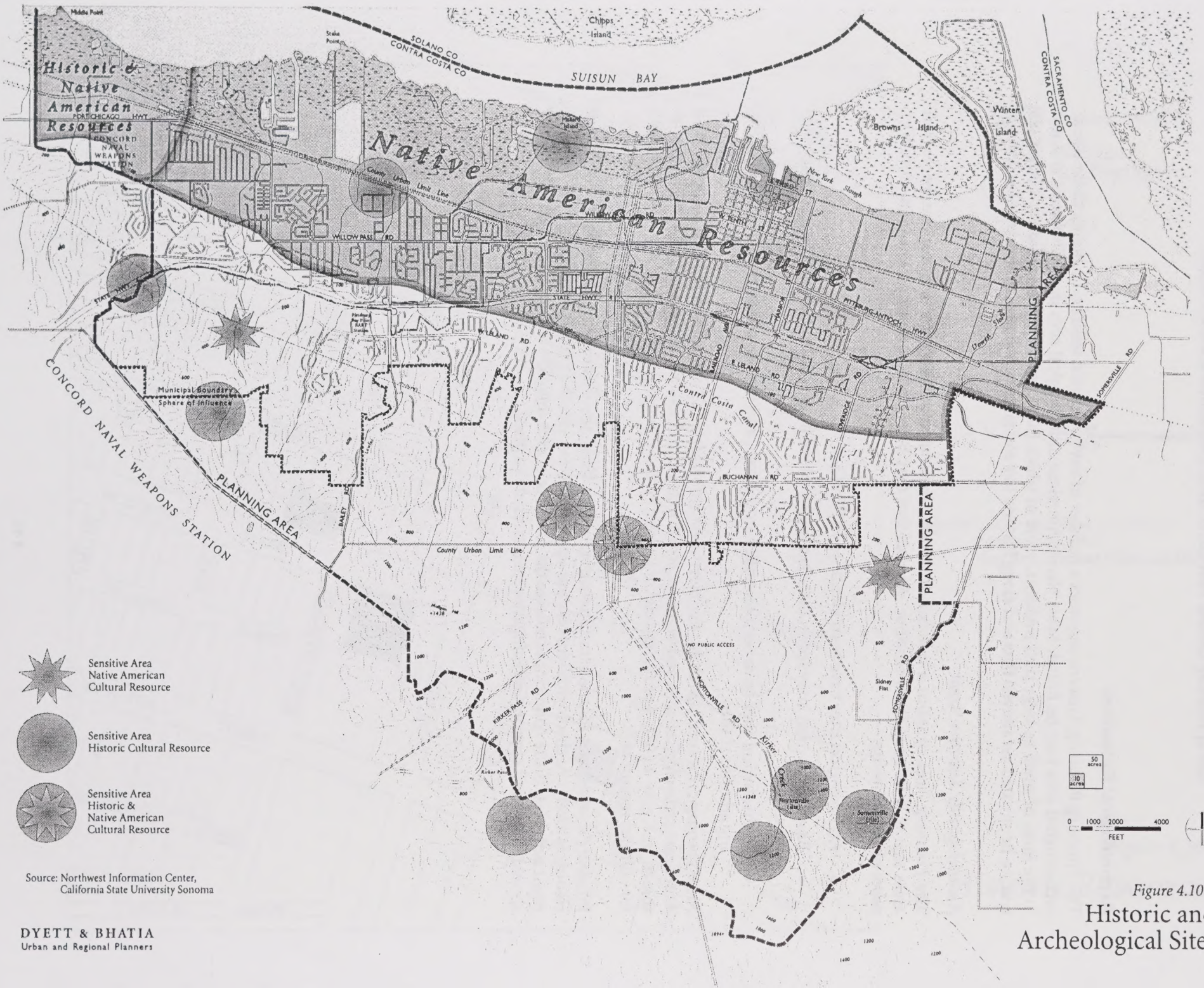
Archeologically Sensitive Areas

The Planning Area contains a number of Native American archeological and historic archeological areas that may be considered sensitive. An area that may be considered sensitive could mean one or more of the following:

- Archeological sites have been identified in these areas;
- Based on current knowledge, there is a high probability of identifying unrecorded archeological sites; or
- Archeological sites have been identified in this area and there is a high potential for identifying additional sites.

An archeological record search by the Northwest Information Center revealed five recorded Native American archeological sites and eight recorded historic archeological sites in the Pittsburg area, as shown in Figure 4.10-2. Approximately 35 percent of the Planning Area has previously been studied for cultural resources.

Pittsburg's waterfront location and industrial history make the existence of additional archeological resources likely. Archeological surveys are appropriate for specific plans and large project development activities. If site conditions indicate the presence of archeological resources, all building activity should cease until appropriate mitigation measures are in place.



Source: Northwest Information Center,
California State University Sonoma

DYETT & BHATIA
Urban and Regional Planners

Figure 4.10-2
Historic and
Archeological Sites

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Destruction of a structure of historic or cultural significance; or
- Removal or disruption of a prehistoric or archeological site.

ANALYSIS OF IMPACTS

Impact 4.10-a Redevelopment within Downtown may adversely affect identified historic resources within New York Landing Historical District. *[Potentially significant]*

A majority of the City's historical resources are currently within the New York Landing Historical District. Many of these historic structures have been refurbished for reuse, with emphasis placed on their historic nature (for example, architectural detailing). However, historic structures along the Railroad Avenue corridor are particularly at risk for damage due to intensification of mixed-use activities. Destruction of even one of the existing historic resources listed in Table 4.10-1 due to Downtown intensification and redevelopment is considered a *potentially significant* impact.

Mitigation Measures

The General Plan proposes preservation of the historical resources in the City's Historical District. Reuse of historical façade's should be emphasized during redevelopment and intensification of Downtown structures. Proposed General Plan policies targeted at minimizing destruction of identified historical resources include:

5-P-26 Encourage the repetition of key historical architectural features—such as windows and displays, cornice details, and roofline/pitch elements—in the redevelopment of commercial structures in Downtown.

5-P-27 Continue the preservation, rehabilitation, and reuse of historically significant structures within the Downtown (as designated in Figure 5-8).

5-P-28 Ensure that new construction and remodeling throughout Downtown (including the New York Landing Historical District) are reviewed for design compatibility by the Planning Commission and Historical Resources Commission.

9-P-31 Encourage the preservation of varied architectural styles that reflect the cultural, industrial, social, economic, political and architectural phases of the City's history.

9-P-32 Expand the role of the City's Historical Resources Commission, currently responsible for only the New York Landing Historical District, to include all historical resources. The Commission should be responsible for designating historical resources, working with the Planning Commission on reviewing development proposals for historical sites, and acting as the community's liaison on these issues.

9-P-34 Redefine the New York Landing Historical District to designate and preserve historical structures not currently located within the district boundaries.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.10-b Excavation and construction associated with future development in the City may disrupt an unidentified prehistoric or archeological site. *[Potentially significant]*

Pittsburg's proximity to both the Sacramento River Delta to the north and rolling, grassy hills to the south makes the existence of additional prehistoric and archeological resources likely. Such resources may be disrupted during excavation and construction of new urban development. Disruption of prehistoric or archeological resources due to new urban development is considered a *potentially significant* impact.

The existence of identified archeological resources along creek corridors leads to the conclusion that further development along local waterways could disturb additional resources. Excavation and grading for development along creek corridors should be conducted in a manner that ensures all unidentified archeological remains are uncovered without disturbance. Sensitive historic and/or archeological resource areas that are planned for urban development under the proposed General Plan include:

- *All lands north of the Delta De Anza Trail have potential to contain Native American Resources.*
- *Buchanan.* Hillside Low Density Residential development within the Highlands Ranch subdivision may contain Native American Resources.
- *Woodlands.* Hillside Low Density Residential neighborhood proposed west of Kirker Pass Road may contain Historic or Native American Resources.
- *Southwest Hills.* Hillside Low and Low Density Residential clusters proposed south of West Leland Road may contain Historic or Native American Resources.

Mitigation Measures

The proposed General Plan provides policies targeted at minimizing disruption of archeological resources:

9-P-36 Ensure the protection of known archaeological resources in the city by acquiring a records review for any development proposed in areas of known resources. If such resources are found, limit urban development in the vicinity or account for the resources.

9-P-37 In accordance with State law, ensure the preparation of a resource mitigation plan and monitoring program by a qualified archaeologist in the event that archaeological resources are uncovered.

9-P-38 If archeological resources are found during ground-breaking for new urban development, halt construction immediately and conduct an archeological investigation to collect all valuable remnants.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.11 HAZARDOUS MATERIALS

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding hazardous materials, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 13: Safety (June 1998), available from the Pittsburg Community Development Department.

Contra Costa County is one of the largest generators of hazardous waste in the State. The majority of this waste comes from industries located along the Bay waterfronts. Approximately two-thirds of hazardous waste generated in the County is treated on-site, while one-third is transported to hazardous waste management facilities.

Hazardous Waste Management

Many industrial operations in Pittsburg involve the use or production of hazardous materials. Most significant are the petroleum and chemical processing plants in the northeastern portion of the City. According to the City's Hazardous Waste Management Plan (HWMP), published in 1991, 11 large-quantity generators produced approximately 79,500 tons of hazardous waste in 1989. Of this, about 45 percent was treated on-site and 55 percent shipped off-site for treatment or recycling. One industrial facility, USS-Posco, accounted for more than 85 percent of total waste generated. Other large generators included Dow Chemical and the Southern Energy (formerly PG&E) power plant. Potential hazards include the toxicity, flammability, and explosivity of petroleum and chemical materials.

The HWMP estimates that about 2,300 metric tons of hazardous waste are produced by small-quantity generators per year. The majority is in the form of waste oil from vehicle maintenance shops. The Plan also estimates a County-wide household hazardous waste generation rate of 7.5 pounds per year. Total waste generation for all uses was approximately 81,900 tons in 1989.

Hazardous waste reduction efforts by large generators are intended to decrease the amount of waste produced by more than 80 percent by the year 2000. This will primarily be the result of improved production processes at the USS-Posco facility, which will reduce waste generation from about 73,000 tons in 1986 to a projected 2,000 tons in the year 2000.

Hazardous Waste Storage and Leakage Sites

The California Regional Water Quality Control Board (RWQCB) annually reports sites in the Bay Area with leaking underground storage tanks and sites with environmental problems due to leaks and spills. Sites included in the Leaking Underground Storage Tank (LUST) list are identified as having soil and/or groundwater contamination resulting from leaks or other discharges from tanks and/or associated piping. Substances reported as leaking include fuels and solvents, primarily petroleum hydrocarbon products. As of October 1996, the list includes 54 sites in Pittsburg with LUSTs.

Spills, Leaks, Investigations, and Clean-up (SLIC) sites are large sites with environmental problems due to accidental releases of toxic substances such as metals, volatile organic compounds, and petroleum hydrocarbons. SLIC sites are not limited to leaking storage tanks, but can also be caused by surface releases, spills, and leaks from other sources. They are known to be soil and/or groundwater polluting, and can be up to hundreds of acres in size. There are 12 SLIC sites located in the Planning Area.

The State requires the upgrade or replacement of tanks and piping installed before 1984, when California's Underground Storage Tank (UST) program and more stringent tank requirements came into effect. This requirement was established by the U.S. Environmental Protection Agency ten years ago to ensure that facility owners, especially those depending on petroleum for providing critical services (e.g., hospitals, police and fire departments), have their USTs upgraded.

Transport of Hazardous Materials

The California Highway Patrol and California Department of Transportation have primary responsibility in regulating the transportation of hazardous waste and materials. Recently, the City designated roadways within Pittsburg that are acceptable for transport of hazardous materials. These roadways are all located within the industrial areas north of State Route 4, including:

- Loveridge Road
- Pittsburg-Antioch Highway
- West Tenth Street/Willow Pass
- North Parkside Drive

For many years, explosive materials were regularly shipped to Concord Naval Weapons Station by highway and rail, including the BNSF and Southern Pacific railroads. Pipelines traversing the Planning Area carry natural gas, crude oil, and refined petroleum products. These pipelines, found throughout Contra Costa County, cross fault lines, unstable slopes, and areas underlain by soft mud and peat. While the County Office of Emergency Services has prepared emergency and disaster plans, the proximity of hazardous materials to populated areas nonetheless represents a potential safety threat.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Increased exposure of residents and workers to hazardous materials, wastes and/or spills.

ANALYSIS OF IMPACTS

Impact 4.11-a Land use distribution may result in location of additional industrial and other facilities with potential for generating hazardous wastes or spills. *[Potentially significant]*

Continued buildout of the industrial acreage in the northeastern portion of the City may result in new hazardous materials and wastes being generated within Pittsburg. Increased exposure of residents to hazardous wastes and spills is considered a *potentially significant* impact.

However, cleanup of contaminated sites may also occur as blighted properties are redeveloped and/or transferred to different land uses. Additionally, the redesignation of several Industrial properties adjacent to State Route 4 to Business Commercial will result in the location of "clean" (non-manufacturing) industries near local activity centers, including:

- *Proposed Railroad Avenue BART Station Area.* Industrial park lands redesignated for mixed-use Business Commercial district, featuring business offices, hi-tech production, retail, and restaurants.

- *Loveridge.* Industrial lands between Pittsburg-Antioch Highway and State Route 4 redesignated for Business Commercial employment centers.

Mitigation Measures

Proposed General Plan policies targeted at minimizing potential hazardous materials exposure to sensitive receptors includes:

5-P-32 Require transitional buffers along the edges of new and redevelopment projects adjacent to the industrial uses east of Downtown. Such buffers may include a combination of landscaped berms, parking areas, pedestrian walkways, and storage facilities.

10-P-31 Cooperate with other public agencies in the formation of a hazardous-materials team, consisting of specially-trained personnel from all East County public safety agencies, to address the reduction, safe transport, and clean-up of hazardous materials.

10-P-32 Designate and map brownfield sites to educate future landowners about contamination from previous uses. Work directly with willing landowners in the clean-up of brownfield sites, particularly in areas with redevelopment potential.

10-P-33 Prevent the spread of hazardous leaks and spills from industrial facilities to residential neighborhoods and community focal points, such as Downtown.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.11-b Expansion of urban land uses and regional roadways may increase exposure to hazardous materials, wastes, and potential spill incidents during transport. *[Potentially significant]*

Expansion of urban activities and industries will increase the potential for hazardous materials spills during transport. Exposure to hazardous materials and waste may be harmful to local residents. Increased potential for resident exposure during transport of hazardous materials is considered a *potentially significant* impact.

Recently, the City designated roadways within Pittsburg that are acceptable for transport of hazardous materials. Proposed land uses along these roadways include:

- *Loveridge Road.* Business Commercial and Industrial activities, north of State Route 4.
- *Pittsburg-Antioch Highway.* Service Commercial, Business Commercial, and Industrial activities, east of Central Park. An existing Low Density Residential neighborhood lies west of Central Park.
- *West Tenth Street/Willow Pass Road.* Service Commercial, Business Commercial, Industrial, and Open Space (seasonal wetlands), west of Downtown. Intensification of existing residential neighborhoods within Downtown.

- *North Parkside Drive.* BNSF Railroad tracks and Open Space (seasonal wetlands) to the north, and Low Density Residential neighborhoods to the south.

Mitigation Measures

The proposed General Plan provides policies targeted at minimizing potential hazardous materials spills during transport:

10-P-31 Cooperate with other public agencies in the formation of a hazardous-materials team, consisting of specially-trained personnel from all East County public safety agencies, to address the reduction, safe transport, and clean-up of hazardous materials.

10-P-34 Identify appropriate regional and local routes for transport of hazardous materials and wastes. Ensure that fire and emergency personnel are easily accessible for response to spill incidences on such routes.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.12 GEOLOGY AND SEISMICITY

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding geology and seismicity, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 13: Safety (June 1998), available from the Pittsburg Community Development Department.

The San Francisco Bay Area is a geologically young and seismically active region. The composition of geologic material, topography, and groundwater conditions affect geologic hazards at a given site. In some soils earthquake waves may be amplified and other areas may be susceptible to liquefaction and/or landslides.

Geology

Pittsburg consists of two general topographic zones: the Lowland zone and the Hillside zone. The Lowland margins of Suisun Bay, underlain by Bay Mud deposit, pose engineering challenges related to weak compressible soils. These coastal areas, which consist of unconsolidated silt and clay with abundant organic material, local peat, sand, and gravel lenses or discontinuous beds (USGS, 1973), are at risk of liquefaction. Lowland areas of the City that are underlain by alluvium present the fewest geologic hazards.

Hillside areas in the western and southern portions of the Planning Area contain steep slopes, weak bedrock, and local landslide deposits. The Hillside zone consists primarily of tilted marine sedimentary and volcanic rocks that range in age from Paleocene to Pliocene. The following discussion of landsliding, soil creep, debris flow, and hazards associated with historic coal mining pertain mainly to the Hillside zone.

Landsliding

Sedimentary rocks in the hillside zone have variable composition. These rocks are generally weak and susceptible to erosion. Consistent weathering has further weakened the rocks in many locations. Landslide deposits often occur along deeply incised stream channels where erosion has undercut the channel banks. Fracture planes occur throughout the southern hills and cuts made in these areas are particularly susceptible to slope failure.

Adverse bedding plan attitudes and fracture planes occur throughout the hills. Cuts made in these areas are particularly susceptible to slope failure. The regional northerly dip direction of sedimentary rocks in the hills presents specific engineering challenges to northerly facing hill slopes. A significant portion of the Hillside zone has been mapped as generally unstable; these areas are susceptible to earthquake-induced landsliding.

Soil Creep and Debris Flow

Expansive soils on moderate to steep slopes are subject to soil creep, a plastic downslope movement that occurs gradually as the soil shrinks and swells over a period of years. Tilted fences observed in the southeastern SOI indicate that soil creep has occurred.

Slopes greater than about 20 percent are also susceptible to debris flows, a sudden soil slump that occurs when ground that is already fully saturated is subjected to further heavy rainfall. Unlike soil creep, debris flows can pose an immediate hazard to both life and property. The 1997-98 winter season caused a number of soil slumps in Pittsburg's southern hills.

Historic Coal Mining

The Black Diamond coal deposits are located in the southeastern portions of the Planning Area. Past mining activities followed two principal coal seams to a depth of more than 550 feet below the ground surface. Records of the Black Diamond Coal Company indicate that by 1890 more than 85 percent of the total reserve at the Black Diamond region had been mined.

Access tunnel and ventilation shafts constructed as part of the mining operation were generally located at the head of ravines, where erosion had naturally worn away portions of the hillside overlying the coal. Most access tunnels were well documented, and have been relocated and sealed over the years. Ventilation shafts, however, are more numerous and their location is poorly documented. These shafts were typically sealed through construction of timber floors placed about ten feet below the ground surface and than backfilled to grade during closure of the mine. The timber floors deteriorate over time and ventilation shafts can collapse, creating soil slumps. Remaining mine openings provide a connection to a labyrinth of subsurface tunnels which can contain cave-ins and unexpected drop-offs. Pockets of poisonous carbon monoxide or methane gas may also be present.

Soils

Soils in Contra Costa County have been mapped by the US Soil Conservation Service (1977). Soils broadly correspond to the Lowland and Hillside zones. However, estuarine soils that have developed on Bay Muds have specific engineering limitations. Table 4.12-1 summarizes development restrictions of various soil types, while Figure 4.12-1 illustrates soil types within the Planning Area.

Seismic Hazards

Eastern Contra Costa County, and the San Francisco Bay Area as a whole, is located in one of the most seismically active regions in the United States. Major earthquakes have occurred in the vicinity of Pittsburg in the past and can be expected to occur again in the near future. The Pittsburg thrust fault is a recently discovered active trace extending northwest-southeast through Downtown (U.S. Geological Survey Award 1434-HQ-97-GR-03079). Fault recurrence and slip rate data are being obtained from marsh core samples, while uplifted fault areas are being interpreted by detailed mapping of landform features and historical aerial photography.

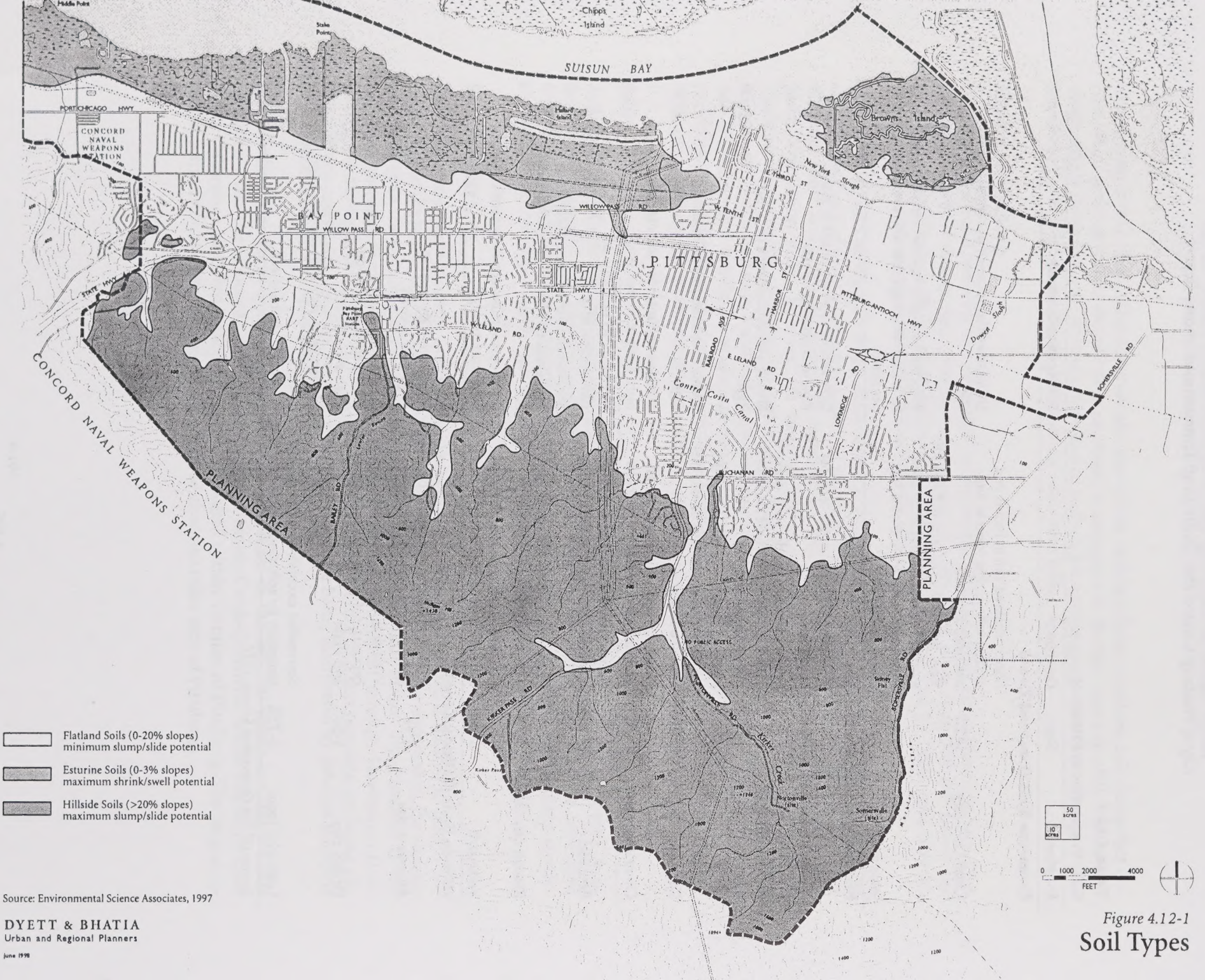
Historically active faults (exhibiting evidence of movement in the last 200 years) in Contra Costa County include the Concord, Hayward, and Clayton-Marsh Creek-Greenville faults. The historically active Calaveras and Green Valley faults are also located within 15 miles of Pittsburg. The largest regional active fault, the San Andreas fault, is located about 40 miles west of Pittsburg.

Table 4.12-1

Soils Properties in Pittsburg

Soil Name	*Slope*	*Description*	*Development Constraints*
Estuarine Soils (Lowland Zone)			
Clear Lake clay	0-2%	Poorly drained soil in basins and coastal valleys that form in fine-textured alluvium	Shrink-swell/subsidence potential high
Joice muck	< 1%	Very poorly drained soil in brackish marshes that are affected by tides, elevations range from 0 to 5 feet above sea level	Affected by high groundwater, capacity to shrink is high, but low swell potential
Flatland Soils (Lowland Zone)			
Antioch loam	0-9%	Well drained soils on old terraces and fans	Low shrink-swell potential in loam, high to moderate in clay
Brentwood clay loam	0-2%	Well drained to moderately drained soils on valley fill derived from sedimentary rocks	Shrink-swell/subsidence potential high
Capay	0-9%	Moderately drained soils along the margins of valley fill and on old dissected benches	Shrink-swell/subsidence potential high
Omni clay loam	0-2%	Poorly drained soil that form on alluvium from sedimentary rocks	Shrink-swell/subsidence potential high. Subject to ponding
Pescadero	0-2%	Poorly drained soil that form on alluvium from sedimentary rocks	Moderate to high shrink-swell/subsidence
Rincon clay loam	0-9%	Well-drained soils that form on benches in alluvial valley fill	Shrink-swell/subsidence potential is moderate to high; slight erosion hazard
Sycamore	0-2%	Poorly drained soils that form on alluvium from sedimentary rocks.	Shrink-swell/subsidence potential is moderate to high
Hillside Soils (Hillside Zone)			
Altamont clay	9-75	Well drained soils underlain by shale and soft, fine-grained sandstone	Moderate/high erosion High shrink-swell
Diablo clay	5-50%	Well drained soils underlain by calcereous, soft, fine-grained sandstone and shale	Moderate/high erosion High shrink-swell
Lodo clay loam	9-75%	Somewhat excessively drained soils underlain by soft sandstone and shale	Moderate to very high erosion hazard. Moderate shrink-swell

Source: US Soil Conservation Service, 1977.



Source: Environmental Science Associates, 1997

DYETT & BHATIA
Urban and Regional Planners

June 1998

Figure 4.12-1
Soil Types

Several potentially active faults (those that have been displaced within the last two million years) occur within the Planning Area. The Kirker Pass and the Black Diamond Area faults are located in the southern portion of the Planning Area. The geologic record indicates that there has been extensive differential movement along a series of northwest-trending splays of the Kirker Pass and Clayton faults, which are centered within the Mount Diablo foothills and extend into the southern portion of the Planning Area. Although these isolated faults are currently considered to be inactive, for planning purposes these fault branches should be considered possible earthquake sources until further investigation demonstrates their activity status. Seismic activity on these relatively minor faults would not be expected to generate earthquakes of large magnitude and would probably not be associated with surface faulting.

Ground Shaking

The intensity of ground shaking that would occur in Pittsburg as a result of an earthquake in the Bay Area is partly related to the size of an earthquake, the distance from the City, and the response of the geologic materials at the site. As a rule, the greater the earthquake magnitude and the closer the fault rupture to the site, the greater the intensity of ground shaking.

The distribution of ground shaking intensity has been mapped by the Association of Bay Area Governments (1995). Ground shaking intensity is described using the Modified Mercalli Scale, which ranges from I (not felt) to XII (wide-spread devastation). A large earthquake on the Concord-Green Valley fault would produce the maximum ground shaking intensities in the City with Modified Mercalli intensity IX in Bay Mud deposits along Suisun Bay, north of State Route 4. Modified Mercalli intensity IX is associated with damage to buried pipelines and partial collapse of poorly built structures. Strong ground shaking of Mercalli intensity VIII would occur locally along creek beds in Lowland portions of the City; however, the major portion of Pittsburg is projected to experience ground shaking of intensity VII on the Modified Mercalli scale, which is associated with non structural damage.

Liquefaction

Liquefaction is the rapid transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake ground shaking. Liquefaction has resulted in substantial loss of life, injury, and damage to property. In addition, liquefaction increases the hazards of fires because of explosions induced when underground gas lines break, and because the breakage of water mains substantially reduces fire suppression capability.

Most of the Lowland areas adjacent to Suisun Bay are mapped by the Association of Bay Area Governments (ABAG) as being highly susceptible to liquefaction hazards. However, the potential for liquefaction depends on soil conditions and groundwater levels, which may fluctuate. In general, where there is any potential for liquefaction, site-specific studies are needed to determine the extent of the hazard.

Landsliding

The strong ground motions that occur during earthquakes are capable of inducing landslides, generally where unstable soil conditions already exist. The portions of the Planning Area having the greatest susceptibility to landsliding during seismic activity are Hillside areas underlain by weak bedrock units of slope greater than 15 percent. In Pittsburg, landslide hazards exist primarily in the upland areas in the southern and western portions of the Planning Area.

Lateral spreading (lurching) also may be present where open banks and unsupported cut slopes provide a free face, or where artificial fill overlies Bay mud. Ground shaking, especially when inducing liquefaction, may induce lateral spreading toward unsupported slopes.

Inundation from Seiche and Tsunami

Earthquakes can cause tsunami ("tidal waves") and seiches (oscillating waves in enclosed water bodies) in the Bay. Portions of the City are located adjacent to Suisun Bay, where low-lying, tsunami or seiche inundation is a possibility. However, projected wave height and tsunami run-up is expected to be small in the interior portions of the Sacramento River Delta.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Increased potential for landslide and soil slump hazards due to expanded urban development in the hills;
- Increased potential for liquefaction and tsunami hazards along the Suisun Bay waterfront; or
- Increased threat of damage from ground shaking and other seismic hazards.

ANALYSIS OF IMPACTS

Impact 4.12-a New development in the Planning Area may expose residents to landslide, soil slump, and other geologic hazards. *[Potentially significant]*

Due to the constant pull of gravity, construction of urban structures on hillside slopes undoubtedly includes the risk of landslide hazards. Development on soft, porous soil expands this risk by allowing the potential for erosion, saturation, soil slump, and other geologic hazards. Exposure of residents to landslide and other geologic hazards is considered a *potentially significant* impact.

According to Figure 4.12-2, geologic hazard areas that are planned for development under the proposed General Plan include:

- *Downtown.* Small Marina Commercial areas along the waterfront are subject to High Liquefaction Potential.
- *Buchanan.* Proposed Hillside Low Density Residential clusters are located on Moderately and Generally Unstable slopes.
- *Woodlands.* Proposed Hillside Low Density Residential neighborhood located between the PG&E powerlines and Kirker Pass Road to be built on Moderately Unstable slopes
- *Southwest Hills.* Proposed urbanization of existing vacant hills are located on Moderately and Generally Unstable slopes; proposed land uses include Business Commercial, Community Commercial, and Hillside Low, Low, Medium, and High Density Residential.

Mitigation Measures

Expansion of residential land uses into the Planning Area's southern hills must carefully assess potential landslide risks; geologic and geotechnical studies must be conducted prior to any grading or construction to ensure safe conditions. The General Plan ensures geologic safety by prohibiting develop-

ment on slopes over 30%, regulating grading and drainage swale construction, requiring geotechnical studies in unstable areas, and forming geological hazard abatement districts (GHADs), as needed. The proposed General Plan includes the following policies targeted at minimizing potential geologic hazards:

10-P-1 Ensure preparation of a soils report by a City-approved engineer or geologist in areas identified as having geological hazards in Figure 10-1, as part of development review.

10-P-2 Limit future development from occurring on slopes greater then 30% (as designated in Figure 10-1).

10-P-3 Regulate the grading and development of hillside areas for new urban land uses. Ensure that such new uses are constructed to reduce erosion and landsliding hazards:

- Limit cut slopes to 3:1, except where an engineering geologist can establish that a steeper slope would perform satisfactorily over the long term.
- Encourage use of retaining walls or rock-filled crib walls as an alternative to high cut slopes.
- Ensure revegetation of cut-and-fill slopes to control erosion.
- Ensure blending of cut-and-fill slopes within existing contours, and provision of horizontal variation, in order to mitigate the artificial appearance of engineered slopes.

10-P-8 During development review, ensure that new development on unstable slopes (as designated in Figure 10-1) is designed to avoid potential soil creep and debris flow hazards. Avoid concentrating runoff within swales and gullies, particularly where cut-and-fill has occurred.

10-P-9 Ensure geotechnical studies prior to development approval in geologic hazard areas, as shown in Figure 10-1. Contract comprehensive geologic and engineering studies of critical structures regardless of location.

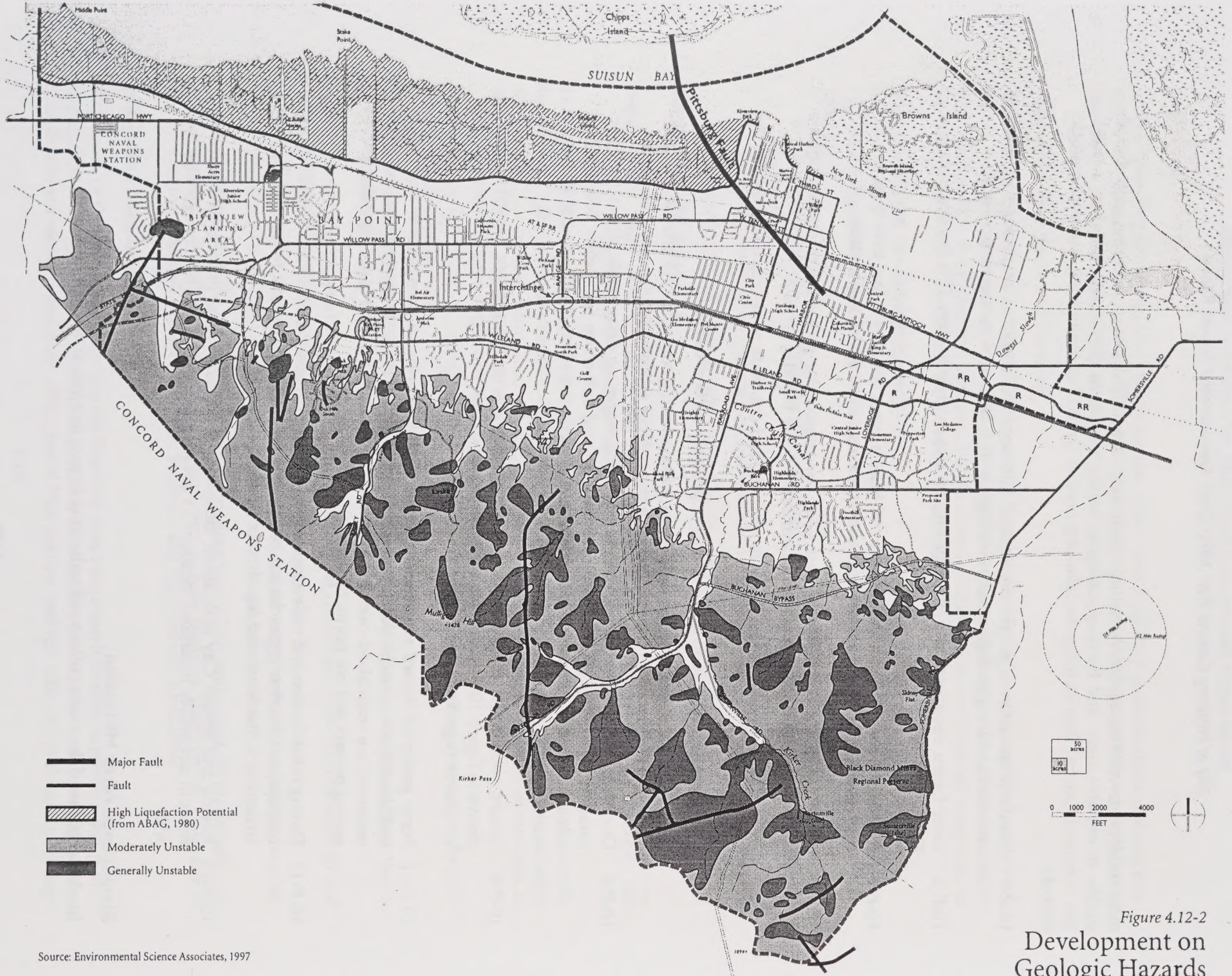
10-P-11 Form geological hazard abatement districts (GHADs) prior to development approval in unstable hillside areas (as designated in Figure 10-1) to ensure that geotechnical mitigation measures are maintained over the long-term, and that financial risks are equitably shared among owners and not borne by the City.

10-P-13 During rehabilitation and redevelopment of industrial properties along the Suisun Bay waterfront, ensure that geotechinical mitigation measures are used to prevent collapse of structures in the event that liquefaction occurs.

10-P-14 Review and amend City ordinances, including the Building Code, that regulate development in potentially hazardous locations to ensure adequate protection from geologic hazards.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.



Source: Environmental Science Associates, 1997

Figure 4.12-2

Development on Geologic Hazards

Impact 4.12-b Redevelopment of sites along the Suisun Bay waterfront may subject greater population to liquefaction, tsunami, and other seismic hazards. *[Potentially significant]*

Much of the waterfront area west of Pittsburg is identified by the Association of Bay Area Governments (ABAG) as having potential for liquefaction. Redevelopment and intensification activities along the shoreline increase the potential for a higher number of residents and their belongings to be damaged in the case of liquefaction during a seismic event. Exposure of residents to liquefaction hazards along the waterfront is considered a *potentially significant* impact.

According to Figure 4.12-2, the only potential liquefaction areas located within City limits are directly adjacent to the shoreline in Downtown:

- *Downtown.* Small Marina Commercial areas along the waterfront are subject to High Liquefaction Potential.

A large wetlands area west of Downtown, extending from the shoreline south to the BNSF railroad tracks, is also identified. Should the City later acquire portions of this area, upon decommissioning of the Concord Naval Weapons Station, liquefaction hazards will have to be addressed before urban development can occur.

Mitigation Measures

Stringent geological and geotechnical mitigation measures could significantly affect the structural quality of redeveloped sites and decrease the risk of total structural collapse. Proposed General Plan policies targeted at minimizing potential liquefaction and tsunami hazards include:

10-P-1 Ensure preparation of a soils report by a City-approved engineer or geologist in areas identified as having geological hazards in Figure 10-1, as part of development review.

10-P-9 Ensure geotechnical studies prior to development approval in geologic hazard areas, as shown in Figure 10-1. Contract comprehensive geologic and engineering studies of critical structures regardless of location.

10-P-13 During rehabilitation and redevelopment of industrial properties along the Suisun Bay waterfront, ensure that geotechinical mitigation measures are used to prevent collapse of structures in the event that liquefaction occurs.

10-P-17 Ensure detailed analysis and mitigation of seismic hazard risk for new development in unstable slope or potential liquefaction areas (as designated in Figure 10-1). Limit the location of critical facilities, such as hospitals, schools, and police stations, in such areas.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.12-c Development on new and infill sites may subject greater population to ground shaking and other seismic hazards. *[Potentially significant]*

Ground shaking occurs with every seismic shift in the earth's crust; increased development simply expands the City's potential for incurring damage from such ground shaking incidents. Both new development at the outer fringes on the City, and infill and redevelopment sites within the built environment, are subject to seismic risks. Exposure of residents to ground shaking hazards is considered a *potentially significant* impact.

Areas within the City with highest potential risk of ground shaking and other seismic hazards are those located on local faults. Two fault lines traverse the City on land designated for urban development:

- *Downtown/East Central.* The Pittsburg Fault runs in a southeastern direction from Suisun Bay—west of the Southern Energy (formerly PG&E) power plant—through the West Tenth Street residential neighborhoods to the Service Commercial uses at the intersection of Harbor Street and Pittsburg/Antioch Highway.
- *Southwest Hills.* Several small, inactive fault traces run east-west across proposed Low Density Residential neighborhoods, south of West Leland Road.

Mitigation Measures

Compliance with the Uniform Building Code, which contains seismic mitigation measures, will contribute to decreasing the risk of total structural collapse during ground shaking. Additional geologic and geotechnical precautions (as discussed in Impacts 4.12-a and -b) will also contribute to safer urban development. Proposed General Plan policies targeted at minimizing potential seismic hazards in new and infill development sites include:

10-P-9 Ensure geotechnical studies prior to development approval in geologic hazard areas, as shown in Figure 10-1. Contract comprehensive geologic and engineering studies of critical structures regardless of location.

10-P-15 Develop standards for adequate setbacks from potentially active fault traces (as designated in Figure 10-2) for structures intended for human occupancy. Allow roads to be built over potentially active faults only where alternatives are impractical.

10-P-16 Ensure compliance with the current Uniform Building Code during development review. Explore programs that would build incentives to retrofit unreinforced masonry buildings.

10-P-17 Ensure detailed analysis and mitigation of seismic hazard risk for new development in unstable slope or potential liquefaction areas (as designated in Figure 10-1). Limit the location of critical facilities, such as hospitals, schools, and police stations, in such areas.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.13 DRAINAGE, FLOODING AND WATER QUALITY

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding hydrology, flooding and water quality, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 12: Environmental Resources and Conservation (June 1998), available from the Pittsburg Community Development Department.

Pittsburg's existing drainage system is comprised primarily of channelized creeks fed by surface runoff and underground storm drains. The City maintains the system within incorporated areas. Outside City limits, the responsibility lies with either Contra Costa County or the County Flood Control District.

Annual rainfall in the Pittsburg Planning Area ranges from 12.5 inches along the Sacramento River to 17.5 inches in the southern hills. Average annual precipitation is 13 inches. Nearly all of this precipitation occurs between November and April, the winter rainy season. The heaviest rainfall usually takes place between December and February.

Watersheds

The developed portions of the Pittsburg Planning Area are within two major watersheds: Kirker and Lawlor creeks. The western portion of the Planning Area is within the Lawlor Creek watershed, which drains into Suisun Bay. Kirker Creek encompasses the central and eastern portions and drains into New York Slough. As shown in Figure 4.13-1, there are five minor watersheds in addition to Kirker and Lawlor Creek watersheds.

The Kirker Creek watershed has an overall area of 8,539 acres and is the most significant watershed in the Planning Area. Approximately seven miles in length, the creek originates in the hills in the southernmost end of the watershed and flows north through the City. In the southern hills, the creek and its tributary channels have sufficient capacity to carry peak stormwater flows. Further downstream, however, natural flow capacity declines as the creek channel flattens. Urbanization north of Buchanan Road further decreases capacity as the channel becomes restricted and enclosed by storm drain culverts. Reduction in permeable soils caused by development also increases the total volume and rate of runoff.

Most of the Lawlor Creek watershed south of Bay Point is undeveloped, though some residential development exists south of State Route 4. Most runoff is conveyed by natural channels, except for storm drains located in developed areas and culverts under State Route 4. Minor watersheds are located west of Lawlor Creek, between Lawlor and Kirker Creeks, and adjacent to the northeastern boundary of the Kirker Creek watershed north of State Route 4. The minor watersheds are drained by small natural channels with no official names.

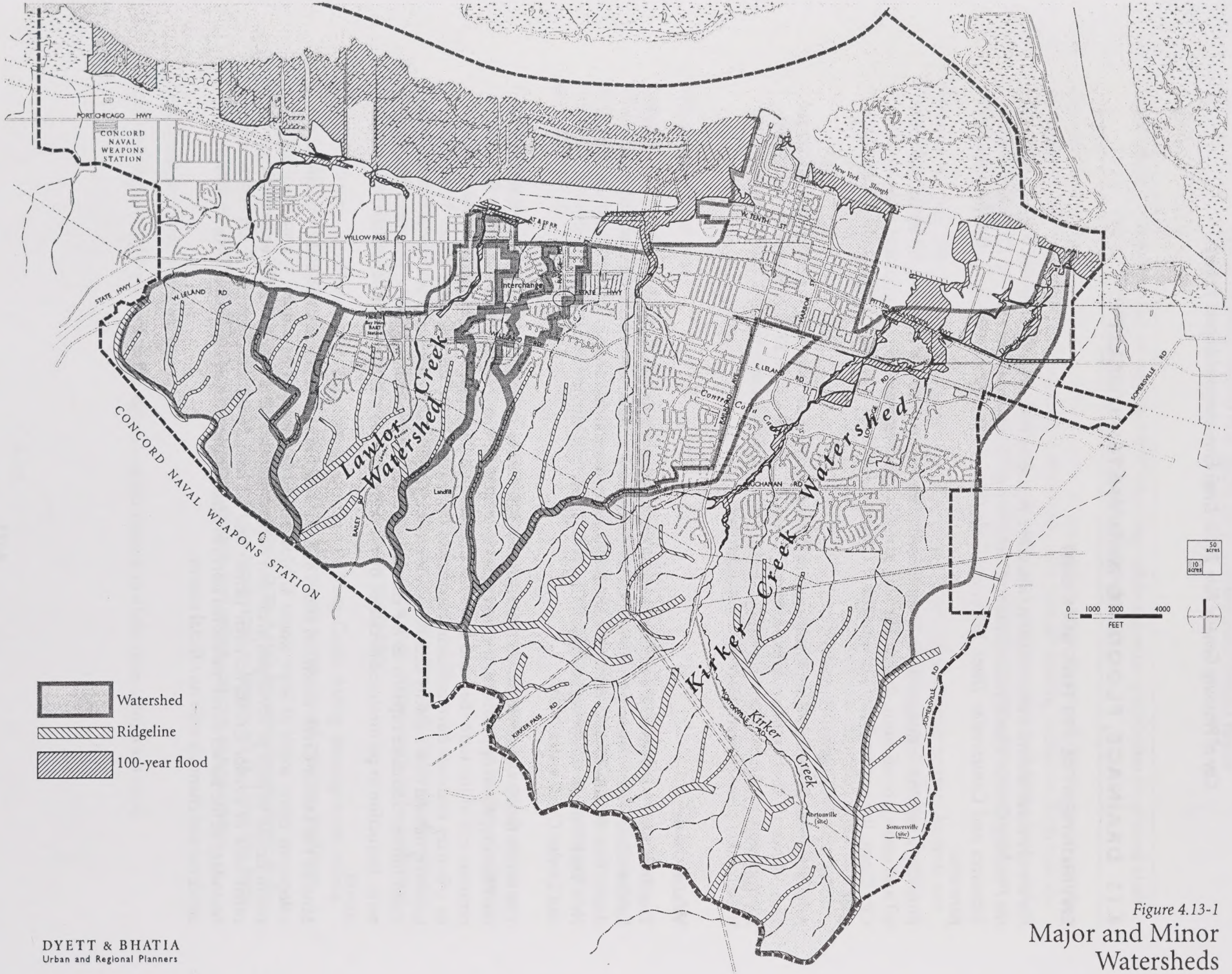


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Figure 4.13-1
Major and Minor Watersheds

Groundwater

The City is part of the Pittsburg Plain groundwater basin. The source of groundwater for the basin is rainwater absorbed into the ground through pervious bedrock deposits in stream channels located in the southern hills. The groundwater flows in a northerly direction following the slope of the land to the below sea-level aquifer that is part of the Sacramento/San Joaquin groundwater system. Intense pumping for industrial uses in the 1930s through 1950s resulted in overdraft and seawater intrusion. Limited amounts of water drawn from the underground aquifer are now blended with raw water from the Contra Costa Canal before treatment and distribution.

Groundwater in the southern hills can be found on two levels. Shallow groundwater from seasonal saturation occurs in the upper five to ten feet of surface soil and underlying bedrock. This groundwater tends to be saline with high mineral concentrations. It eventually drains into streams and natural drainage channels at the end of the rainy season. Further below ground is a second layer of groundwater. It exists year-round between 40 and 80 feet below the surface.

Flooding

Certain portions within the Planning Area, particularly along the Delta, are susceptible to storm flooding. Most flood-prone areas in Pittsburg are marshlands, and are not proposed for development under existing plans. Other areas within the 100-year and 500-year flood plains include Browns Island, portions of the industrial area in northeast Pittsburg, Kirker Creek, and Lawlor Creek.

The City's Capital Improvement Program (CIP) for 1996-2001 identified the Kirker Creek and Lawlor Creek watersheds as areas most in need of attention. The channels require major cleaning due to years of siltation, as well as upgrades to the system. Three projects are listed in the CIP – the Stormwater Management Plan Update, Storm Drain Maintenance Plan, and Kirker Creek Watershed Improvements. The City is completing improvements to eliminate the recurrent seasonal flooding situation at West Boulevard and Madoline Street.

Flood Control Management

The City is responsible for maintaining the flood control system within the incorporated area. In the unincorporated parts of the Planning Area, the County Flood Control District (FDC) maintains major channels and creeks over which they hold land rights. The County Department of Public Works maintains road drainage systems and several detention basins. However, most of the Planning Area, particularly the Kirker Creek watershed, is not managed by FCD. The County Board of Supervisors has never adopted any plan or fee structure for flood control efforts. The City's Stormwater Management Plan identifies deficiencies and improvements to the storm drain system, while the Storm Drain Maintenance Plan addresses maintenance requirements for Lawlor and Kirker Creek watersheds.

Water Quality

Discharges into water from fixed points, known as "point" sources, can affect surface and groundwater, as well as enter the storm drain system. These discharges consist mostly of effluent from industrial facilities and municipal wastewater systems, and are regulated under the Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act.

"Nonpoint" sources of pollution include general pollutants from streets, open areas, and urban lands, the runoff which is not collected and directed into a wastewater treatment plant. In general, nonpoint

source pollution is difficult to regulate and manage. In Pittsburg, this includes runoff from roads and parking lots due to leaking cars and exhaust emissions, as well as industrial emissions and erosion.

Many of the City's industrial and service commercial sites are sources of soil and groundwater contamination. Examples of substances released by these businesses include petroleum hydrocarbons, metals, and volatile organic compounds. Contamination may be due to leaking underground storage tanks, surface chemical releases, and accidental spills. The California Regional Water Quality Control Board (RWQCB) identifies and monitors contaminated sites, and publishes listings of sites known to cause soil and groundwater pollution annually, along with periodic updates.

The hills south of the City consist primarily of rangeland. Thus, the only potential sources of surface water pollution are organic waste produced by cattle, runoff from the area's few inhabitants, and residue and debris from vehicles traveling on Kirker Pass Road. These materials are ultimately washed into local stream and drainage channels and carried by Kirker Creek through the City and into the Sacramento River. The impact of these limited pollution sources on downstream water quality is probably negligible, compared with the impact caused by typical urban uses.

Best Management Practices

According to the Stormwater Management Plan, the area of Kirker Creek adjacent to Kirker Pass Road is degraded by stormwater pollution. The City has assigned a high priority to its restoration. In addition, New York Slough and Suisun Bay are identified in the plan as resources of special recreational and habitat value, and should not be degraded by stormwater runoff. These and other water resources are the focus of a set of Best Management Practices (BMPs), which address several potential pollution sources. The *Pittsburg General Plan Update: Exiting Conditions and Planning Issues* Report defines the set of BMPs.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Increased exposure of residents and workers to storm flooding due to increased runoff in the local creek and drainage system;
- Degraded water quality levels due to run-off and other non-point source pollutants; or
- Accumulation of debris and sediment due to increased construction activities.

ANALYSIS OF IMPACTS

Impact 4.13-a Land use distribution may result in exposure of new residents near creeks and drainage channels to flooding hazards. *[Potentially significant]*

Expanded development patterns under the General Plan will allow construction of new residential neighborhoods along creeks and drainage channels. This same development will increase the amount of impermeable surface existent within the City, and require higher levels of stormwater runoff to be transported through the local drainage system. Exposure of residents to storm flooding hazards along local creeks and drainage channels is considered a *potentially significant* impact.

According to the General Plan, existing and proposed development located within the 100- and 500-year floodplains includes:

- *Downtown.* Proposed Marine Commercial center at the terminus of Harbor Street within the 100-year floodplain.
- *West Central.* Business Commercial and Industrial parcels—including the Southern Energy (formerly PG&E) power plant—located within the 100-year floodplain.
- *Northeast River.* Several Industrial parcels located within the 100-year floodplain, particularly adjacent to Dowest Slough.
- *Loveridge/East Leland.* Industrial and Business Commercial activities located within the 100-year floodplain.
- *Buchanan.* Existing residential neighborhoods and school sites located within the 100-year floodplain.

Mitigation Measures

Expansion and improvement of the City's storm drain system is a necessary component of the proposed General Plan. Each new residential, commercial, or industrial development project must provide adequate storm drain improvements to mitigate both on-site and downstream runoff levels. Proposed General Plan policies targeted at minimizing flooding hazards include:

9-P-14 Establish development standards for new construction adjacent to riparian zones to reduce sedimentation and flooding. Standards should include:

- Requirements that low berms or other temporary structures such as protection fences be built between a construction site and riparian corridor to preclude sheet-flooding stormwater from entering the corridors during the construction period.
- Requirements for installation of storm sewers before construction occurs to collect stormwater runoff during construction.

9-P-15 To prevent additional flood hazards in the Kirker Creek watershed, ensure that new development minimizes paved areas, retaining large blocks of undisturbed, naturally vegetated habitat to allow for water infiltration.

10-P-18 Evaluate storm drainage needs for each development project in the context of demand and capacity when the drainage area is fully developed. Ensure drainage improvements or other mitigation of the project's impacts on the storm drainage system appropriate to the project's share of the cumulative effect.

10-P-19 Assure through the Master Drainage Plan and development ordinances that proposed new development adequately provides for on-site and downstream mitigation of potential flood hazards.

10-P-21 Encourage the formation of flood control assessment districts for those areas within the 100- and 500-year flood plains (as designated in Figure 10-3). Encourage new hillside developments to form flood control assessment districts to accommodate runoff and minimize downstream flooding, if determined necessary.

10-P-22 Ensure that pad elevations on newly constructed habitable buildings are one foot above the 100-year floodplain, as determined by FEMA.

10-P-23 Allow the construction of detention basins as mitigation in new developments. Such detention basins must be designed according to the City's Municipal Code.

10-P-25 Develop and adopt regulations to control development along open channels and creeks, consistent with the County's Subdivision Code, Title 9. Ensure adequate minimum setbacks to reduce potential damage from storm flooding and protect riparian habitat.

10-P-26 Reduce the risk of localized and downstream flooding and runoff through the use of high infiltration measures, including the maximization of permeable landscape.

10-P-30 Encourage residential development to install post-construction Best Management Practices (BMPs) to minimize runoff from the site to the stormdrain system (for example, using permeable surfaces for parking lots, sidewalks, and bike paths, or using roof runoff as irrigation).

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.13-b New urban land uses may result in increased non-point-source pollutant levels in stormwater runoff and the regional drainage system. *[Potentially significant]*

The nature of non-point source pollutants in stormwater runoff—having no identifiable source—makes it difficult to develop techniques for reduction. Landscaping chemicals, cleaning solvents, paint, litter or other debris, and petroleum fluids are all sources of pollutants in stormwater runoff. Most non-point source pollution in urban runoff is due to petroleum fluids and oils dripping onto streets and parking lots from vehicles, and washing down storm drains during winter rains.

Increases in developed land, population, and vehicle miles traveled under the proposed General Plan will all contribute to increased non-point-source pollution and degraded water quality within local creeks and drainage channels. Such increases in water pollution levels within the local drainage system is considered a *potentially significant* impact.

Mitigation Measures

Educating local residents that storm drains feed into local streams may help reduce pollutant levels due to negligent disposal. Additionally, rehabilitation of creeks and wetlands will provide cleansing of degraded water flows and improve water quality. Proposed General Plan policies targeted at minimizing non-point-source pollutant levels include:

9-P-9 Establish creek protection areas along riparian corridors, extending a minimum of 50 feet laterally from the tops of streambanks. Setback buffers for habitat areas of identified special status species and wetlands may be expanded to 150 feet, as needed to preserve ecological resources. No development should occur within these buffer areas, except as part of greenway enhancement (for example, trails and bikeways).

9-P-18 Continue working with the Regional Water Quality Control Board in the implementation of the National Pollutant Discharge Elimination System (NPDES), with specific requirements established in each NPDES permit.

9-P-19 Require new urban development to use Best Management Practices (BMPs) to minimize creek bank instability, runoff of construction sediment, and flooding.

9-P-21 Encourage rehabilitation and revegetation of riparian corridors and wetlands throughout the City to contribute to bioremediation and improved water quality.

9-P-23 Protect water quality by reducing non-point sources of pollution and the dumping of debris in and near waterways and storm drains. Continue use and implementation of the City's storm drain marking program in newly developed or redeveloped areas.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.13-c New urban development may increase the amount of stormwater runoff, increasing downstream flooding in Kirker and Lawlor Creeks. *[Potentially significant]*

Expanded urban development results in increases in impervious surfaces, which prevents rainfall from penetrating into the ground, and thereby increases surface runoff. Streets, roofs, parking lots, and driveways are all impervious surfaces. Increases in stormwater runoff increases peak flows in receiving channels and streams during and immediately after storms. Stormwater runoff from developed sites may concentrate and cause increases in runoff volume for downstream channels.

Expanded urban development under the General Plan will increase stormwater runoff levels in the City's major watersheds. Resulting downstream flooding along Kirker and Lawlor Creeks is considered a *potentially significant* impact.

Existing deficiencies within the Kirker Creek drainage system will be exacerbated by additional Hillside Low Density Residential uses proposed in the Woodlands subarea, along Kirker Pass and Nortonville Roads. Increased storm runoff levels will contribute to recurrent seasonal flooding of the smaller culverts north of Buchanan Road. Extensive improvements must be made to the storm drainage system in the eastern part of the City.

Additionally, proposed Hillside Low Density Residential development in the Southwest Hills subarea will significantly affect stormwater runoff levels in Lawlor Creek. Development of High Density Residential and Business Commercial uses along West Leland Road will result in further impervious surface area and increased stormwater runoff within the watershed. Widespread drainage improvements must be made during construction of new development within the subarea.

Mitigation Measures

Proposed General Plan policies targeted at controlling stormwater runoff and minimizing downstream flooding hazards include:

9-P-13 As part of development plans, require evaluation and implementation of appropriate measures for creek bank stabilization, as well as necessary Best Management Practices (BMPs) to reduce erosion and sedimentation. However, preserve natural creek channels and riparian habitat as best possible.

9-P-14 Establish development standards for new construction adjacent to riparian zones to reduce sedimentation and flooding. Standards should include:

- Requirements that low berms or other temporary structures such as protection fences be built between a construction site and riparian corridor to preclude sheet-flooding stormwater from entering the corridors during the construction period.
- Requirements for installation of storm sewers before construction occurs to collect stormwater runoff during construction.

9-P-15 To prevent additional flood hazards in the Kirker Creek watershed, ensure that new development minimizes paved areas, retaining large blocks of undisturbed, naturally vegetated habitat to allow for water infiltration.

10-P-18 Evaluate storm drainage needs for each development project in the context of demand and capacity when the drainage area is fully developed. Ensure drainage improvements or other mitigation of the project's impacts on the storm drainage system appropriate to the project's share of the cumulative effect.

10-P-21 Encourage the formation of flood control assessment districts for those areas within the 100- and 500-year flood plains (as designated in Figure 10-3). Encourage new hillside developments to form flood control assessment districts to accommodate runoff and minimize downstream flooding, if determined necessary.

10-P-22 Ensure that pad elevations on newly constructed habitable buildings are one foot above the 100-year floodplain, as determined by FEMA.

10-P-23 All new development (residential, commercial, or industrial) should contribute to the construction of drainage improvements in the Kirker Creek and other watersheds in the Planning Area.

10-P-25 Develop and adopt regulations to control development along open channels and creeks, consistent with the County's Subdivision Code, Title 9. Ensure adequate minimum setbacks to reduce potential damage from storm flooding and protect riparian habitat.

10-P-26 Reduce the risk of localized and downstream flooding and runoff through the use of high infiltration measures, including the maximization of permeable landscape.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.13-d New development projects may induce construction-related erosion, sedimentation, and accumulation of debris. *[Potentially significant]*

Soil erosion is a likely and problematic factor in grading and construction activities. New and infill development proposed by the General Plan could cause soil erosion and debris accumulation hazards in the City storm drain system. Construction-related erosion, sedimentation, and accumulation within local creeks and drainage channels is considered a *potentially significant* impact.

Mitigation Measures

The proposed General Plan provides the following policies targeted at minimizing construction-related erosion, sedimentation, and debris:

9-P-13 As part of development plans, require evaluation and implementation of appropriate measures for creek bank stabilization, as well as necessary Best Management Practices (BMPs) to reduce erosion and sedimentation. However, preserve natural creek channels and riparian habitat as best possible.

9-P-14 Establish development standards for new construction adjacent to riparian zones to reduce sedimentation and flooding. Standards should include:

- Requirements that low berms or other temporary structures such as protection fences be built between a construction site and riparian corridor to preclude sheet-flooding stormwater from entering the corridors during the construction period.
- Requirements for installation of storm sewers before construction occurs to collect stormwater runoff during construction.

9-P-19 Require new urban development to use Best Management Practices (BMPs) to minimize creek bank instability, runoff of construction sediment, and flooding.

9-P-20 Reduce sedimentation and erosion of waterways by minimizing site disturbance and vegetation removal along creek corridors.

10-P-8 During development review, ensure that new development on unstable slopes (as designated in Figure 10-1) is designed to avoid potential soil creep and debris flow hazards. Avoid concentrating runoff within swales and gullies, particularly where cut-and-fill has occurred.

10-P-27 Adopt practices for development and construction on sites where the erosion potential is moderate to severe.

10-P-29 Ensure that all development projects build on-site retention basins during initial site preparation to store run-off water generated by construction activities.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

4.14 NOISE

ENVIRONMENTAL SETTING SUMMARY

For a more detailed environmental setting discussion regarding noise, see the Pittsburg General Plan Update: Existing Conditions and Planning Issues, Chapter 15: Noise (June 1998), available from the Pittsburg Community Development Department.

The major sources of noise in Pittsburg include traffic along State Route 4, arterial roadways, and railway corridors. Noise produced by industrial facilities has a negligible effect on the City's noise environment.

Traffic Noise

By far the greatest contributor to noise in the Planning Area is traffic on State Route 4, producing noise levels exceeding 60 dB over approximately 2,000 feet, or more than one-third mile, both north and south of the highway. This area includes adjacent neighborhoods throughout the length of the highway. Neighborhoods located at the convergence of State Route 4, Railroad Avenue, and the railroad tracks are also particularly susceptible to noise levels above 60 dB. These include portions of the West Central and West Leland subareas near Railroad Avenue, and most of the East Central subarea. Roadways that impact sensitive receptors (that is, produce noise levels greater than 60dB) include:

- State Route 4;
- Pittsburg-Antioch Highway;
- Railroad Avenue;
- Leland Road;
- Willow Pass Road;
- Bailey Road;
- Buchanan Road;
- Harbor Street; and
- Loveridge Road.

Much of Bay Point is also susceptible to high noise levels due to its proximity to the BNSF railroad, State Route 4, Bailey Road, and Port Chicago Highway.

Railroad Noise

Activity on the BNSF and Southern Pacific railroads also represents significant source of noise in the Planning Area. Noise levels reaching 70 dB exist along the length of both railroads, potentially affecting adjacent noise-sensitive uses. Residential neighborhoods are located south of the railroad tracks in both Pittsburg and Bay Point, and north of the tracks in Pittsburg's East Central subarea. Factors that may influence the overall impact of railroad noise on noise-sensitive uses include its intermittent nature and the lack of sound walls or other barriers between the tracks and adjacent uses.

Pittsburg-Bay Point BART Station

The Pittsburg-Bay Point BART Station, which began operations in 1996, is located at the southwest corner of the State Route 4/Bailey Road interchange. On a typical weekday, 75 trains provide service from this station to others in the BART system. BART rail tracks traverse the center of State Route 4, contributing to the general noise environment of the portion of the Planning Area from the western City limit to the station. A new station, potentially at the State Route 4/Railroad Avenue interchange, has also been proposed.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Increased exposure of excessive noise levels to sensitive receptors; or
- Increased noise levels along existing and new roadway corridors.

ANALYSIS OF IMPACTS

Impact 4.14-a New development may increase traffic volumes along existing roadways and introduce traffic along new roadways, thereby exposing residents to roadside noise levels in excess of 60 dB Ldn. *[Potentially significant]*

Increased population and employment levels within the City will generate increased traffic volumes and noise levels on local and regional roadways. Additionally, more dense development patterns will subject increased resident and employee populations to ancillary transportation-related noise, such as truck deliveries. Exposure of residents to roadway noise levels in excess of 60dB is considered a *potentially significant* impact.

Traffic forecasts to accommodate projected growth in the City were used to generate noise projections at General Plan buildout. Projected noise levels on local roadways are shown in Table 4.14-1. Two separate noise measurements (100 feet and 1,000 feet) were used to determine noise severity. The projected noise contours in Figure 4.14-1 reflect these measurements; however, the scale of the map restricts placement of additional contours above 70 dB along major transportation corridors.

Highest noise levels in Pittsburg will result along the State Route 4 corridor (90 dB), while above-acceptable noise levels will also result along many major arterial roadways (>70 dB). The excessive noise levels estimated along State Route 4 result from two primary factors: 1) BART rail lines running down the center median, with train pass-bys increasing average daily noise levels; and 2) heavy vehicle traffic along the highway corridor, which lies within a narrow right-of-way with residential development built up on either side.

Table 4.14-1
Projected Traffic Noise Levels at Buildout, City of Pittsburg

	Affected Roadway Segments	Projected Noise Level at 100 ft. (L_{dn})	Projected Noise Level at 1,000 ft. (L_{dn})
1	State Route 4	90 dB	75 dB
2	Pittsburg-Antioch Highway	79 dB	64 dB
3	Railroad Avenue	79 dB	64 dB
4	Willow Pass Road	79 dB	64 dB
5	Buchanan Road	78 dB	63 dB
6	East Leland Road	77 dB	62 dB
7	Bailey Road	77 dB	62 dB
8	Loveridge Road	75 dB	60 dB

Source: Charles Salter & Associates, July 2000.

Sensitive noise receptors along these roadway segments would experience outdoor noise levels in excess of 60 dB as a result of new development under the General Plan. More specifically, all of these roadway segments have residential uses located along portion of them. Residents located near the roadways would experience unacceptable traffic-related noise levels.

Mitigation Measures

Noise attenuation programs for structures along heavily-trafficked roadways will ensure that sensitive land uses are not disturbed by roadway noise. Noise-sensitive land uses could be shielded from traffic noise through us of solid wood fences, landscaped earth berms, or building setbacks. Solid walls and earth berms can attenuate sound by about 5-15 dB. Proposed General Plan policies targeted at minimizing noise levels along roadway corridors include:

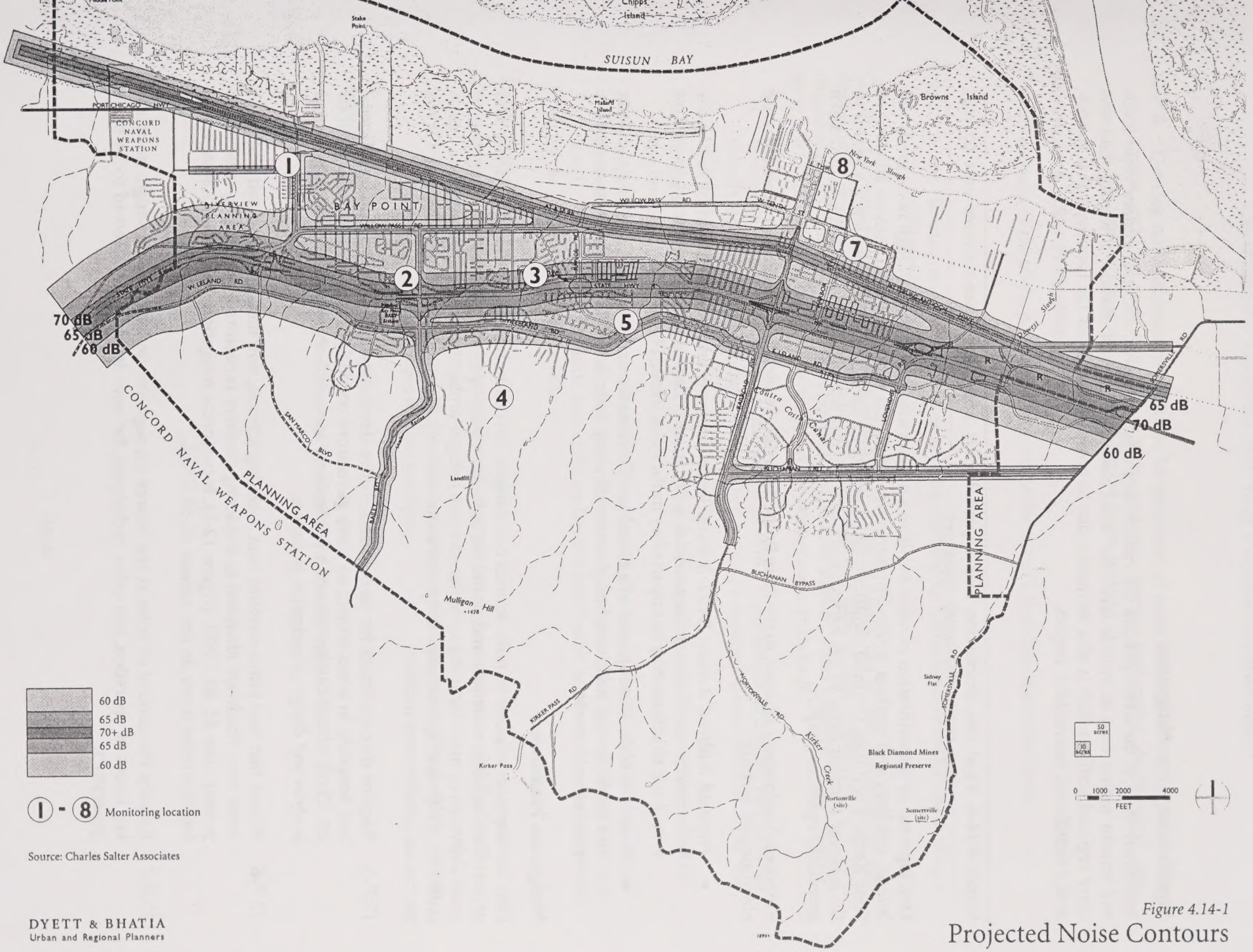
12-P-2 Work with Caltrans to provide sound walls designed to reduce noise by 10 dB in residential areas along State Route 4.

12-P-3 Support implementation of State legislation that requires reduction of noise from motorcycles, automobiles, trucks, and aircraft.

12-P-4 Require noise attenuation programs for new development exposed to noise above normally acceptable levels. Encourage noise attenuation programs that avoid visible sound walls.

12-P-6 Ensure that new noise-sensitive uses, including schools, hospitals, churches, and homes, in areas near roadways identified as impacting sensitive receptors by producing noise levels greater than 65 dB CNEL (Figure 12-1), incorporate mitigation measures to ensure that interior noise levels do not exceed 45 dB CNEL.

12-P-7 Require the control of noise at the source through site design, building design, landscaping, hours of operation, and other techniques, for new development deemed to be noise generators.



Source: Charles Salter Associates

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Figure 4.14-1
Projected Noise Contours

Significance After Mitigation

Implementation of the above policies will reduce the impact; however, ambient outdoor noise levels will remain higher than acceptable levels for some roadway segments. Because Pittsburg roadways carry regional traffic, which is also increasing due to growth throughout the County, this is considered a significant, unavoidable impact.

Impact 4.14-b Land use distribution may expose homes and other noise-sensitive uses to high noise levels. *[Potentially significant]*

Development or intensification of noise-sensitive land uses adjacent to areas of high noise levels will impact residents and workers within Pittsburg. New and infill residential development adjacent to State Route 4 will pose the most significant noise-sensitivity issue. Projected noise levels adjacent to the highway corridor equal 90 dB. Exposure of noise-sensitive uses to high noise levels is considered a *potentially significant* impact.

Proposed development adjacent to the State Route 4 corridor, which is considered an excessive noise environment, include:

- *Proposed Railroad Avenue BART Station.* Redevelopment and intensification of mixed-use Community and Business Commercial activities. Residential units constructed as part of mixed-use structures may be impacted by traffic noise levels.
- *Southwest Hills.* Development of a mixed-use Community and Business Commercial district and High Density Residential neighborhoods along State Route 4 will contain unacceptable exterior noise levels.

Mitigation Measures

New development adjacent to noise sources can mitigate interior noise levels through site design and orientation, building materials, and sound barriers. New development that generates noise, due to truck deliveries or manufacturing activities, can also mitigate ambient noise levels through site design sensitive to adjacent, quieter uses. Proposed General Plan policies targeted at reducing noise levels near noise-sensitive uses include:

12-P-5 Require that applicants for new noise-sensitive development, such as schools, residences, and hospitals, in areas subject to noise generators producing noise levels greater than 65 dB CNEL obtain the services of a professional acoustical engineer to provide a technical analysis and design of mitigation measures.

12-P-6 Ensure that new noise-sensitive uses, including schools, hospitals, churches, and homes, in areas near roadways identified as impacting sensitive receptors by producing noise levels greater than 65 dB CNEL (Figure 12-1), incorporate mitigation measures to ensure that interior noise levels do not exceed 45 dB CNEL.

12-P-7 Require the control of noise at the source through site design, building design, landscaping, hours of operation, and other techniques, for new development deemed to be noise generators.

12-P-8 Develop noise attenuation programs for mitigation of noise adjacent to existing residential areas, including such measures as wider setbacks, intense landscaping, double-pane windows, and building orientation muffling the noise source.

Significance After Mitigation

Implementation of the above policies will reduce the impact to a less-than-significant level.

Impact 4.14-c Existing noise-sensitive uses may be exposed to construction-related noise. *[Potentially significant]*

Construction-related noise, particularly within early-morning hours, can be very disturbing to residences, schools, churches, and other noise-sensitive uses. Exposure of noise-sensitive uses to construction-related noise is considered a *potentially significant* impact. Areas adjacent to new development will be most heavily impacted by construction-related noise, including:

- *Downtown.* Redevelopment of mixed-use Downtown Commercial structures and Medium Density Residential neighborhoods. Construction of new Business Commercial uses just west of Downtown boundaries.
- *Proposed Railroad Avenue BART Station Area.* Redevelopment and intensification of mixed-use Business Commercial structures.
- *Southwest Hills.* Construction of new Medium and High Density Residential complexes, Business Commercial centers, and mixed-use Community Commercial village along West Leland Road. Construction of Hillside Low and Low Density Residential homes within the hills south of the PG&E powerline corridor.

Mitigation Measures

The proposed General Plan provides policies targeted at minimizing construction-related noise:

12-P-9 Limit generation of loud noises on construction sites adjacent to existing development to normal business hours between 8am and 5pm.

Significance After Mitigation

Implementation of Policy 12-P-9 will reduce the impact to a less-than-significant level.

4.15 TELEPHONE, CABLE AND ENERGY

ENVIRONMENTAL SETTING SUMMARY

Telephone

Telephone services are provided by Pacific Bell. Pacific Bell provides local service and maintains most telephone-related infrastructure in the City. With deregulation, customers are able to choose different providers for their long distance service.

Computing has created demand not only for additional telephone lines, but also for increased bandwidth, which determines the speed and reliability with which Internet users can download and upload information. Pacific Bell has been adding analog and digital capacity to local telephone lines to keep up with increased home and business needs. Also, Pacific Bell now offers Digital Subscriber Line (DSL) service to most of Contra Costa County. Technological improvements and decreasing hardware and software costs are expected to generate even more demand for high bandwidths. Pacific Bell's proposed upgrades and studies for future expansion are designed to meet future demand.

Cable

Television cable services are provided through Viacom Cable, located within Pittsburg. AT&T Cable Services, based in the City of Brentwood, also provides digital cable through the Internet, by delivering television programming directly to a personal computer via a cable connection, cable modem, and customized software.

Energy

Electricity services are provided to the City by Pacific Gas and Electric Company (PG&E). Although the Southern Energy corporation generates energy at the Pittsburg Power Plant, PG&E distributes it to users within the region through overhead transmission lines.

California's electric industry restructuring law, Assembly Bill 1890 (AB 1890), endorses competitive energy generation, separate from a utility's power transmission and distribution operations. The California Public Utilities Commission has issued a directive asking that the state's utilities voluntarily divest at least 50 percent of fossil-fueled power plants within their service territories. Therefore, in mid-1998, PG&E sold its Pittsburg Power Plant to Southern Energy. However, PG&E still retains the transmission lines bisecting the City between Railroad Avenue and Stoneman Park.

The Pittsburg Power Plant contains seven natural gas burning, steam-generating units with a combined capacity of 2,022 MW. PG&E continuously monitors demand and projects future load growth, in an effort to anticipate any needed improvements. Should PG&E determine that additional capacity is needed, the first response would be to increase transformer capacity at the existing substations.

Several alternative energy sources are available within Contra Costa County. The two main sources of renewable energy include wind farming and solar power. Several wind turbines have been constructed within the County, and potential exists for additional wind farm development. However, no areas within the City's Planning Area have been identified with high wind potential. The region's mild climate makes solar heating feasible if structures are properly sited and solar access is protected from encroachment by future development.

THRESHOLDS OF SIGNIFICANCE

Significant impacts would occur with full implementation of the Pittsburg General Plan if results included:

- Increased need for or inefficient use of local energy sources.

ANALYSIS OF IMPACTS

Impact 4.15-a Intensification and expansion of land uses in the City may result in substantial new energy requirements. *[Potentially significant]*

Construction and operation of all urban development requires increased energy sources. The proposed increases in both commercial and residential densities and land area under the General Plan will result in increased energy consumption. Substantial increases in energy requirements, above available capacities, is considered a *potentially significant* impact.

Typical urban development consumes energy for both direct and indirect uses. Direct uses primarily include construction: site preparation, grading, and street and utility construction. Direct uses also include monthly energy consumption through utilities. Indirect energy use is attributed to operation and maintenance of transportation, schools, and other support facilities.

Mitigation Measures

Use of energy-saving design and devices, particularly in single-family units, will contribute to moderate increases in energy requirements over the next 20 years. General Plan policy 2-P-15 is targeted at minimizing new energy requirements:

2-P-18 Revise the City's Subdivision Ordinance to include provisions for solar access and other energy-saving devices. Revise the City's Zoning Ordinance to require undergrounding of utility service/transformer boxes in new residential subdivisions.

Significance After Mitigation

Implementation of Policy 2-P-15 will reduce the impact to a less-than-significant level.

5 Impact Overview

This chapter presents an overview of major impacts of the General Plan, as discussed in Chapter 4. Unavoidable, irreversible, growth-inducing, and cumulative impacts are summarized, as required by CEQA Guidelines.

5.1 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL IMPACTS

According to CEQA Guidelines 15126(b), the Draft EIR must discuss any significant environmental impacts that cannot be avoided under full implementation of the proposed project. Also, the Draft EIR must discuss why the project is being proposed, notwithstanding such impacts. The mitigation measures described in *Chapter 4: Environmental Setting, Impact Analysis & Mitigation*, which include policies in the proposed General Plan, would avoid or eliminate most significant impacts. However, significant unavoidable impacts would be expected in the areas of transportation and air quality.

TRANSPORTATION

Buildout of the proposed General Plan (including approved development) would result in increased daily trips and vehicle-miles traveled. According to Impact 4.3-a, additional trips resulting from General Plan buildout would contribute to congestion along State Route 4 and local arterials, including Railroad Avenue, Pittsburg-Antioch Highway, Leland Road, Loveridge Road, Willow Pass Road, California Avenue, Bailey Road and Buchanan Road. As a result, a decline in LOS standards would occur. Although the General Plan proposes mitigation measures to alleviate traffic congestion, impacts will still remain significant.

AIR QUALITY

Additional vehicle trips resulting from increased population and jobs under the General Plan would contribute to the emission of harmful pollutants (carbon monoxide, particulate matter, and ozone precursors) within the Planning Area. Additional urban growth throughout the region contributes to higher air pollutant levels within the total air basin. While the General Plan provides policies targeted at minimizing auto emission pollutants, impacts will still be considered significant.

According to Impact 4.4-b, the proposed General Plan is inconsistent with the 1997 Clean Air Plan. The population assumptions and TCMs would be inconsistent with the transportation performance standard that links the rate of increase in VMT with the rate of increase in population. Despite a more balanced job/housing ratio, mixed-use development, and increased connectivity, estimated rate of increase in VMT associated with future development in Pittsburg would exceed the rate of increase in population, in keeping with overall regional trends.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines requires the Draft EIR to consider whether "uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely" (CEQA Guidelines, Section 15126(c)). "Nonrenewable resources" refer to the physical features of the natural environment, such as land, air, waterways, etc.

OPEN SPACE

Development of vacant sites throughout the City and within the southern hills would result in the conversion of open land to urban uses. The development of infill sites would not constitute the loss of open space, because most sites are already surrounded by existing urban infrastructure and development. Development within the southern hills will entail disruption of rangeland for cattle grazing, a small portion of agricultural land with local importance, and smaller, intermittent riparian habitat and wetlands.

AIR QUALITY

The proposed project would result in significant irreversible impacts on air quality. Long-term use of automobiles throughout the region can lead to the accumulation of carbon monoxide (CO) in the atmosphere, a major contributing factor to global warming. Increases in vehicle trips and traffic congestion resulting from the Proposed General Plan would potentially contribute to long-term degradation of air quality and atmospheric conditions in the Bay Area, California, and the western United States.

Ground-level air pollution, while significant, is not an irreversible impact. Ground-level air pollution in the Pittsburg area that results from automobile emissions can be reduced through improvements in fuel efficiency and the shift from internal combustion to electric engines. In addition, roadway improvements that increase roadway capacity and reduce overall congestion can help reduce street-level air pollution, because cars waiting in traffic (with intermittent accelerations and decelerations) emit more pollutants than cars travelling in free-flow conditions.

ENERGY SOURCES

New development would also result in the commitment of existing and planned sources of energy, which would be necessary for daily use of new structures. Both residential and non-residential development use electricity, natural gas, and petroleum products for power, lighting, heating, and other indoor and outdoor services. Expanded urban development in Pittsburg would result in increased energy demand, which may or may not be from renewable sources.

The increased number of trips to and from new development would also result in the commitment of additional energy sources. Automobiles consume gasoline and other petroleum products, while transit trips via electrified rail routes, such as BART, rely on electric energy from a variety of sources. Increased energy consumption for transportation would also result from expanded urban development.

CONSTRUCTION-RELATED IMPACTS

Significant irreversible environmental changes could also occur in the course of construction of many development projects consistent with the General Plan. These projects must be assessed through a detailed project-level environmental review in accordance with CEQA. Construction of new urban uses results in consumption of building materials, natural gas, electricity, water, and petroleum products. Due to the non-renewable or slowly renewable nature of these resources, this represents an irretrievable commitment of resources.

5.3 GROWTH-INDUCING IMPACTS

The Draft EIR must examine the potential growth-inducing impacts of the proposed General Plan. More specifically, CEQA Guidelines require that the Draft EIR "discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly (CEQA Guidelines, 15126(f))." This analysis must also consider the removal of obstacles to population growth, such as improvements in regional transportation systems.

Growth-inducing impacts over an extended time period are difficult to assess with precision, because future economic and population trends could be influenced by unforeseeable events, such as natural disasters, business and development cycles, and overall economic trends. Moreover, long-term changes in economic and population growth are often regional in scope; they are not influenced solely by changes or policies within Pittsburg. Also, economic trends are influenced by economic conditions throughout the State and country, as well as around the world. Despite these limitations on the analysis, it is still possible to assess the general potential growth-inducing impacts of the proposed General Plan.

The General Plan, by nature of its policies, removes obstacles to growth by permitting additional development and infrastructure improvements.

INCREASE IN REGIONAL HOUSING DEMAND

The General Plan would have long-term growth-reducing impacts on the region. By accommodating growth, the General Plan may ease pressure for growth in surrounding areas. However, increased employment in Pittsburg may place further demand for housing within the surrounding region.

Development would occur in a variety of settings; a majority of growth would be infill in nature with limited hillside growth. The estimated increase in population and employment could be much lower than estimated, depending on which projects are built and what existing uses are replaced. While an exact time period for accomplishment of buildout is neither specified nor anticipated by the proposed General Plan, if this state were reached in 20 years, the average annual population growth rate would be 1.5 percent. If growth were to occur at a slower pace, buildout would take longer than 20 years.

Job Growth

Rapid economic growth during the current business cycle is resulting in an increase of employment in the services sector, indicating a changing local economy and increase in commuter population. The General Plan accommodates these pressures for regional employment growth through approximately 6 million square feet of new non-residential space. Based on the buildout of new non-residential development, employment would increase by over 20,000 new jobs. This estimate of the increase in building space is substantially lower than buildout estimates under the current General Plan (No Project alternative); estimates at the time in 1988 indicated an increase of 13.8 million square feet of new non-residential space.

Regional Housing Demand

As a result of new job growth, housing demand may increase in Pittsburg, and in other cities that lie within commuting distance of the City. This would include Bay Point, other parts of Contra Costa County, Antioch, Concord, Brentwood, and perhaps some other parts of the region. However, increases in Pittsburg's housing supply and diversity of housing types would offer opportunities for many Pittsburg workers who live in other communities to relocate to Pittsburg.

In order to provide housing opportunities for new workers and fulfill fair-share housing requirements, the General Plan identifies additional residential sites within the Planning Area. A variety of sites are identified: existing residential sites are targeted for intensification; vacant lands within the southern Planning Area are designated; and existing non-residential sites are identified for conversion to residential uses. The potential for new housing development in the hillsides outside City boundaries are limited as a result of topographical and geological constraints.

JOBS/HOUSING BALANCE

While an imbalance with respect to jobs and housing continues in Pittsburg, a faster rate of job growth over that of population will provide excellent economic opportunities. Employment projections derived from the General Plan land use distribution resulted in more than 20,000 new jobs created, an increase of more than 90 percent. A total of 31,800 commercial jobs and 11,000 industrial jobs will be available within the Pittsburg Planning Area if all available commercial, office and industrial acreage is developed.

The primary focus will be to improve the City's ability to balance the jobs/housing ratio and provide a variety of opportunities for employees and employers to locate in the City. Employment growth under the General Plan will have a beneficial effect upon the overall jobs/employed residents' balance in Contra Costa County as a whole.

5.4 CUMULATIVE IMPACTS

CEQA requires that the Draft EIR examine the cumulative impacts of the proposed project. As discussed in Section 15130(a)(1) of the CEQA Guidelines, a cumulative impact "consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." The analysis of cumulative impacts need not provide the level of detail required of the analysis of impacts from the project itself, but shall "reflect the severity of the impacts and their likelihood of occurrence" (Section 15130(b)).

In order to assess cumulative impacts, the Draft EIR must analyze either "a list of past, present, and probably future projects" or "a summary of projections contained in an adopted general plan or related planning document." Since these are several major projects underway in Pittsburg, this analysis examines relevant projects rather than projections. Major projects include:

- *San Marco Residential Development.* Located on 640 acres, the San Marco project includes single and multi-family housing units and a commercial activity node. Approximately 1,400 units are planned for Hillside Low Density and Low Density Residential. An additional 1,500 units are allotted for Medium and High Density Residential. Approximately 10 and 40 acres are reserved for Community Commercial and Business Commercial, respectively.

- *Alves Ranch.* High Density Residential and Business Commercial uses are planned adjacent to the Pittsburg/Bay Point BART Station, intended for mixed-use, walkable development patterns. Medium and Low Density Residential units are planned south of West Leland Road.

- *Highlands Ranch.* Located on 174 acres in the southeastern portion of the City, Highlands Ranch will contain 600 Low Density Residential units.

- *Atlantic Avenue Apartments.* Consists of 204 housing units, both Medium and High Density Residential.

- *Century Plaza.* Business Commercial complex, approximately 440,000 square feet.

- *North Park Plaza.* Regional Commercial center along State Route 4, approximately 360,000 square feet.

POPULATION PROJECTIONS

As illustrated in Table 5.4-1, Pittsburg will be experiencing an annual population growth slightly greater than that of the County. Within the next twenty years, Pittsburg will undergo an annual population increase of nearly two percent to 97,000. Meanwhile, Contra Costa County will grow just over one percent per year to 1,169,000. Brentwood will experience the highest population growth, with an annual increase of over five percent, to a total population double its existing estimate.

Table 5.4-1
Population in Pittsburg, Surrounding Cities, and Counties

	2000 Population	*2020 Population*	*Annual Increase*
Pittsburg	71,400	97,000	1.8%
Antioch	84,600	115,900	2.0%
Brentwood	24,700	52,100	5.5%
Clayton	12,300	15,500	1.3%
Concord	116,800	128,000	0.5%
Contra Costa County	941,900	1,169,000	1.2%
Solano County	401,300	547,400	1.8%
Alameda County	1,462,700	1,671,700	0.7%

Source: ABAG Projections, 2000.

TRANSPORTATION

Buildout of the General Plan, in combination with other relevant projects, would contribute to congestion along major roadways in the Pittsburg area. Continued growth within Pittsburg and Contra Costa County would attract significantly more vehicle trips, many of which would be made via regional routes (for example, State Route 4 and Pittsburg-Antioch Highway). Several regional routes run through the City, and would be affected by through-traffic to expanded development outside the immediate Pittsburg area.

Traffic conditions along State Route 4 will be influenced by development occurring throughout the County, not just development in the immediate Pittsburg area. Therefore, it is necessary to examine overall growth trends within the region. Significant increases in population and jobs within adjacent cities will contribute to heavier traffic congestion along the State highway.

Dramatic increases in job growth projected under the proposed General Plan will also contribute to cumulative traffic impacts, and would therefore be potentially significant. Proposed transportation improvements that will help alleviate traffic congestion in and around the City include:

- Widening of State Route 4 to 6 lanes, plus 2 high-occupancy vehicle (HOV) lanes;
- Extension of West Leland Road to Avila Road;
- Construction of proposed San Marco Boulevard from State Route 4 to Bailey Road;
- Construction of proposed Buchanan Road Bypass;
- Construction of proposed Range Road/State Route 4 overcrossing/interchange; and
- BART rail extended east along State Route 4, with construction of proposed Railroad Avenue BART Station.

While these improvements will increase options for travel and help alleviate peak congestion, they would not absorb ~~the entire~~ increase in vehicle trips that would result from new development under the General Plan and ~~other~~ adjacent projects.

AIR QUALITY

The Bay Area's air quality is largely influenced by motor vehicle use. Although ownership and usage of automobiles are increasing faster than population, the trend towards cleaner vehicles will counteract some of the negative air quality associated with vehicle use.

Emissions generated as a result of increased traffic and construction activity under the proposed General Plan would potentially contribute to degraded air quality within the entire Bay Area. Regional air quality impacts would result from accumulation of ozone precursors and particulate matter in the atmosphere. Overall, a net reduction in the emissions of ozone precursors and carbon monoxide is expected, while particulate matter is expected to increase to 2020.

5.5 IMPACTS FOUND NOT TO BE SIGNIFICANT

CEQA requires that the Draft EIR provide a brief statement indicating why various possible significant impacts were determined to be not significant and were not discussed in detail. *Chapter 4: Environmental Setting, Impacts Analysis & Mitigation* of the DEIR discusses all potential impacts, regardless of their magnitude. A similar level of analysis addresses impacts found to be less than significant as impacts found to be significant. Significance of an impact is assessed in relation to the thresholds of significance provided in each section of Chapter 4. A summary of all impacts is provided in *Chapter 1: Executive Summary.*

6 Alternatives

CEQA mandates consideration and analysis of alternatives to the proposed project. The range of alternatives "shall include those that could feasibly accomplish most of the basic purposes of the project and could avoid or substantially lessen one or more of the significant impacts" (CEQA Guidelines §15126(d)(2)). The alternatives may result in new impacts that do not result from the proposed project. The analysis must explain why the alternatives and related mitigation measures would not be preferable to the proposed project.

Case law suggests that the discussion of alternatives need not be exhaustive, and that alternatives be subject to a construction of reasonableness. The impacts of the alternatives may be discussed "in less detail than the significant effects of the project as proposed" (CEQA Guidelines § 15126(d)(3)). Also, the Guidelines permit analysis of alternatives at a less detailed level for general plan and other program EIRs, compared to project EIRs. The Guidelines do not specify what would be an adequate level of detail. Quantified information on the alternatives is presented where available; only partial quantification is available for some impacts.

Five land use and transportation alternatives were considered during the General Plan process:

1. *No Project Alternative.* Continued growth under the approved 1988 General Plan.
2. *County Urban Limit Line (1996) Alternative.* The Urban Limit Line, designated in the 1996 Contra Costa County General Plan, is used as the edge of development in this alternative. All land outside the line is retained as open space. However in mid 2000, Contra Costa County proposed amendments to the Urban Limit Line, which exclude several hundred acres in the southern hills. These new amendments were not taken into consideration in the development of this alternative.
3. *Moderate Hillside Growth Alternative.* Growth is accommodated in a combination of infill sites and on selected hillside locations with the least topographic constraints and visibility from the flatlands.
4. *Infill/Maximum Hillside Preservation Alternative.* The edge of existing and approved urban development is used as the limit of growth, resulting in maximum preservation of hillsides. However, to accommodate growth, infill sites have higher development intensities.
5. *Proposed General Plan.* The City's preferred General Plan land use distribution is a combination of infill development and limited hillside growth. With a focus on economic development, the Plan includes construction of regional commercial centers, mixed-use transit-oriented development, commercial revitalization of the historic Downtown, and redevelopment of industrial uses.

The alternatives provide a range of options for growth and conservation, and would have varying amounts of development capacity.

The *Proposed General Plan* alternative is described in *Chapter 3: Project Description.* The General Plan Land Use Diagram is shown in Figure 3.4-1, while Downtown Land Uses are shown in Figure 3.4-2.

6.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

CEQA requires that one of the alternatives be a *No Project* alternative. The *No Project* alternative represents the case in which the proposed General Plan (the proposed project) is not adopted or implemented by the City of Pittsburg. In the absence of the proposed project, the existing 1988 General Plan would continue to guide the City's development. Full buildout of the existing General Plan would include currently approved projects, plus additional development permitted by the Plan in the future. The City's existing (year 2000) SOI includes all land within City limits and the Bay Point area (see Figure 6.1-1).

TRANSPORTATION IMPROVEMENTS

Proposed improvements include a new arterial road from Bailey Road to Somersville Road (extended Buchanan Bypass), extension of West Leland Road to Avila Road, extension of Willow Pass Road south from State Route 4 to Bailey Road, extension of Century Boulevard south to Somersville Road, and extension of East Tenth Street to Loveridge Road.

DOWNTOWN

Expansion of the Downtown Commercial district is to occur along Railroad Avenue and will include mixed-use retail, service, office and residential activities (Figure 6.1-2). Conversion of Downtown Low Density Residential adjacent to West Tenth Street to Downtown Medium and High Density Residential is also planned.

While feasible, this alternative does not respond to the issues that created the need for the General Plan Update. The update was initiated in order to respond to changing demographic and economic conditions, accommodate transportation demands, induce Downtown revitalization, and balance development and conservation in the hillsides.

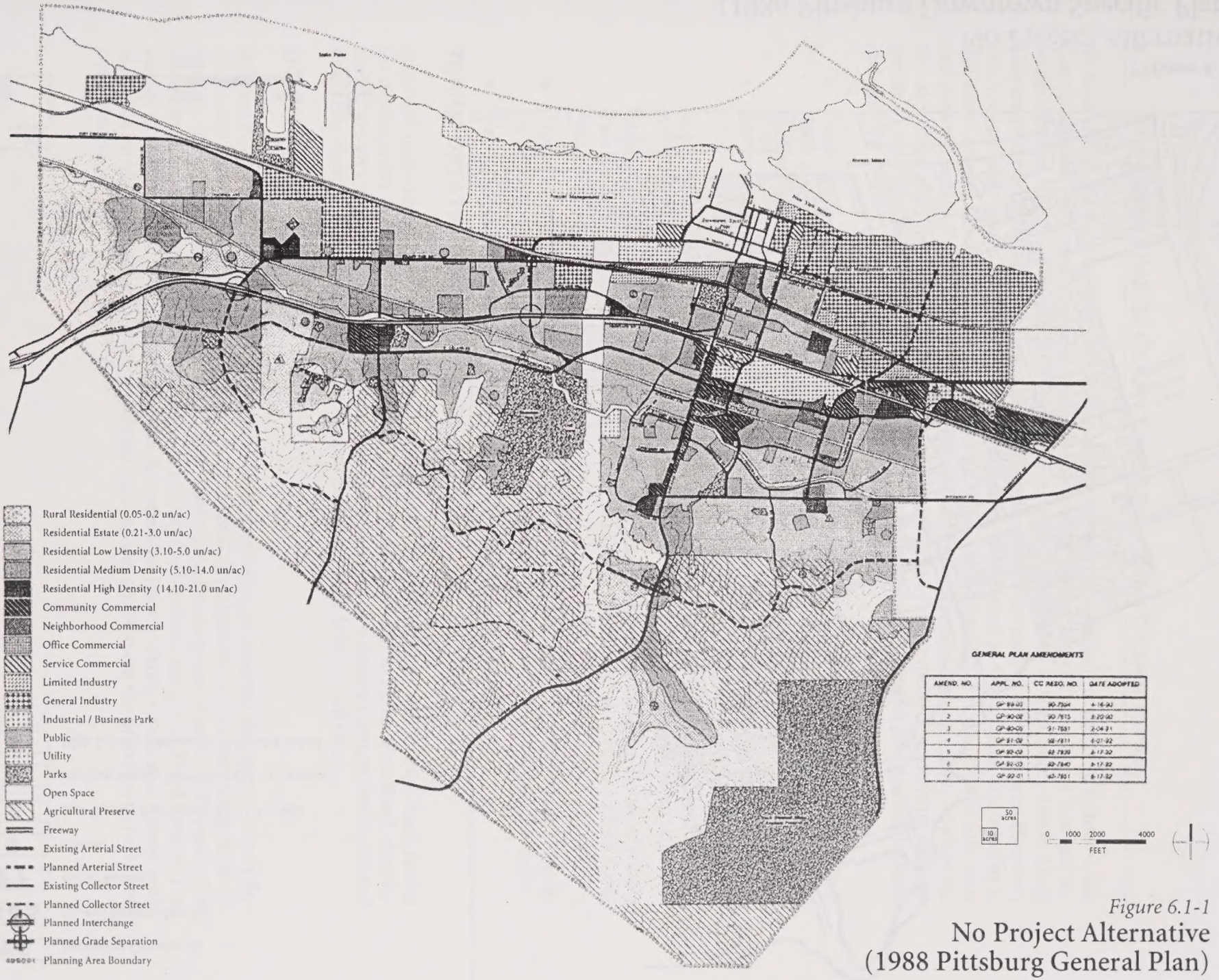

Figure 6.1-1
No Project Alternative
(1988 Pittsburg General Plan)

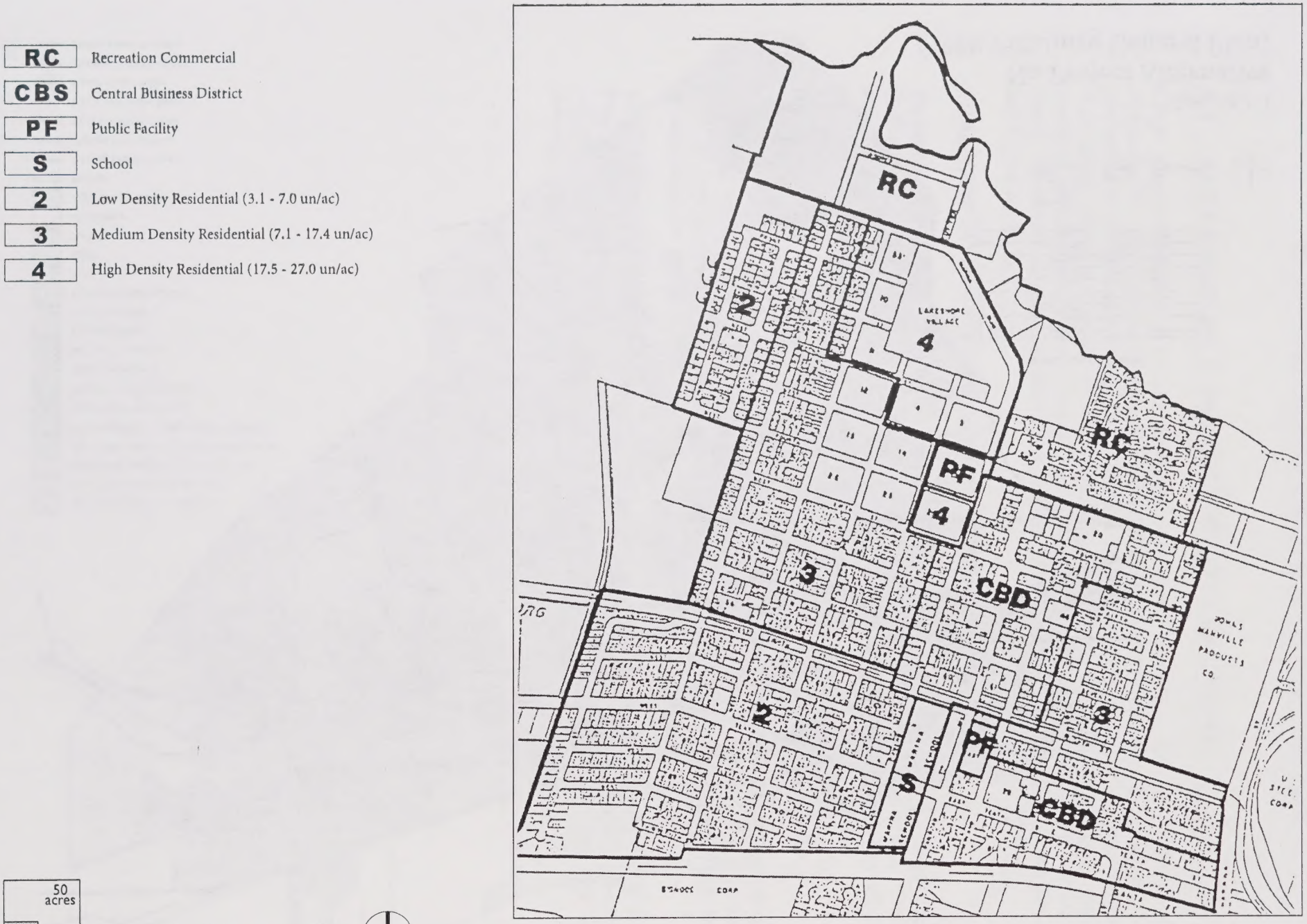

Figure 6.1-2

No Project Alternative
(1986 Pittsburg Downtown Specific Plan)

6.2 ALTERNATIVE 2: COUNTY URBAN LIMIT LINE (1996)

All land within the *County Urban Limit Line* (1996) alternative, as defined in the 1996 Contra Costa County General Plan, entails urban development extending to the County Urban Limit Line and includes relevant hillsides (Figure 6.2-1). Amendments made in mid-2000 to the County Urban Limit Line are not reflected in this alternative. All land outside the line is retained as open space. However, sites on extremely steep (greater than 30 percent) slopes are retained as Open Space, and a buffer is delineated around the Keller Canyon Landfill. The Urban Limit Line (ULL) is straight and arbitrary, and does not reflect underlying topographic features and environmental considerations. In addition, this alternative does not consider hillside topography, ridgeline preservation, or underlying soil and geologic conditions. It offers good potential to accommodate future residential growth. Key features include:

- Three major growth areas are proposed: Southwest hills, along Bailey Road and Willow Pass Road extension south of State Route 4; between the Black Diamond Mines Regional Preserve and Buchanan Road; and along Willow Pass Road, west of the power transmission lines.
- Compared to the other alternatives, more land—3,940 acres; including infill and new growth areas—is proposed for urban uses.
- Low-Density Residential uses are located primarily outside current City limits, in hillside locations. Hillside growth will be in locations visible from State Route 4, and on steep terrain.
- Medium/High Density Residential uses are concentrated in two areas: State Route 4/Willow Pass interchange (160 acres out of a total of 350 acres) and around the proposed BART station at Railroad Avenue.
- This alternative provides the most Low Density Residential land, and accommodates the largest population. The overall density of new residential development is 4.4 units per gross acre.
- New commercial development is located primarily along State Route 4.

TRANSPORTATION IMPROVEMENTS

Proposed improvements include a southern extension to Bailey Road from Willow Pass Road. Access for development south of Stoneman Park is provided by a connection to Kirker Pass Road. Also included are an extension of West Leland Avenue and a connection between Century Boulevard and California Avenue. A future BART station is located at State Route 4/Railroad Avenue.

DOWNTOWN

Existing designations in Downtown are largely retained, resulting in minimal changes in current development patterns (Figure 6.2-2). New commercial/retail developments are located along Railroad Avenue, East Third Street, and East Tenth Street. Aside from the proposed Marina Walk residential development, the only major residential site is east of Bay Harbor Park, along East Third Avenue. The east of Downtown area will remain industrial. An expanded Central Harbor Park and a linear park along the former Sacramento-Northern Railroad right-of-way supplement the inventory of parks and open spaces.

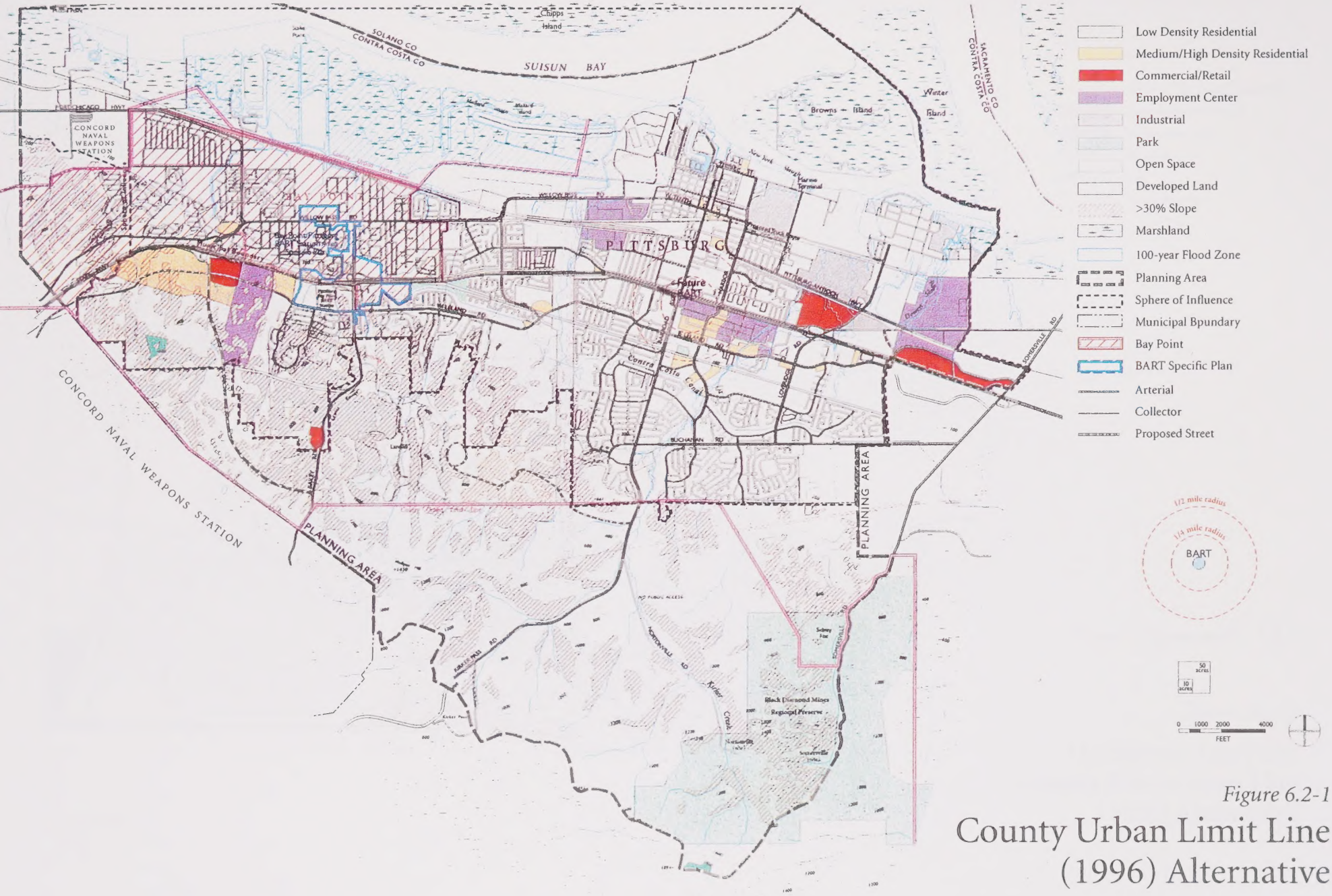

Figure 6.2-1

County Urban Limit Line (1996) Alternative

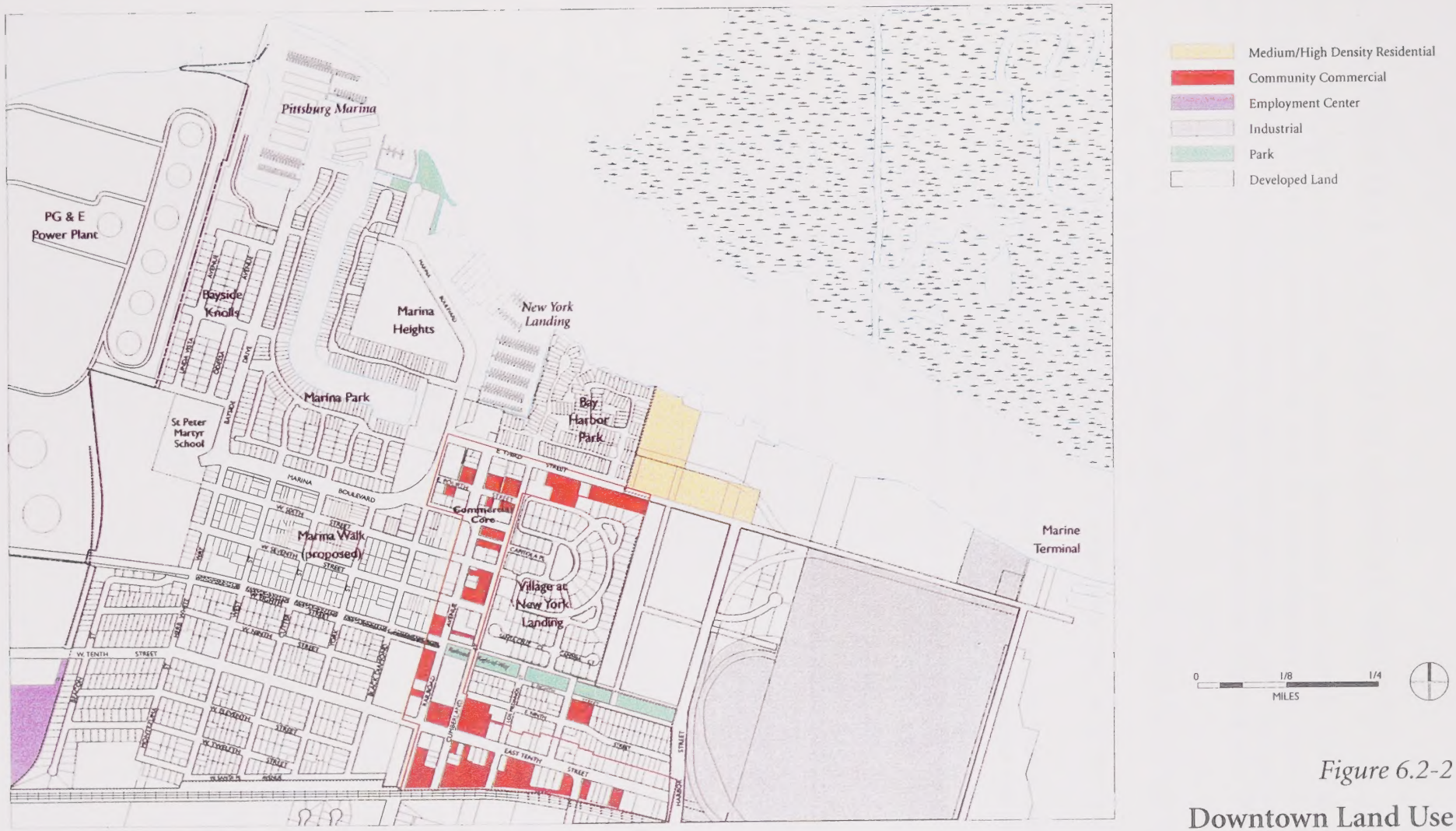

Figure 6.2-2

Downtown Land Use County Urban Limit Line (1996) Alternative

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6.3 ALTERNATIVE 3: MODERATE HILLSIDE GROWTH

Hillside development, predominantly Low Density Residential interspersed with clusters of Medium/High Density Residential, is located away from the major ridgelines and viewsheds, and in flatter pockets. Infill sites are largely reserved for employment-generating uses. Commercial centers are located in both infill and hillside areas near residential neighborhoods (Figure 6.3-1). Key aspects include:

- The only growth area is in the southeast hills. Development would be on sites farthest and least visible from the flatlands.
- Less hillside land is proposed for conversion to urban uses, than as in the County Urban Limit Line (1996) alternative.
- This alternative has the least potential for Medium/High Density Residential development, and at 4.0 units per gross acre, is the lowest overall residential development density. It would also result in the smallest increase in population at buildout.
- This alternative is notable for its emphasis on employment centers, with more than 900 acres allocated to this use category.

TRANSPORTATION IMPROVEMENTS

The Buchanan Bypass is extended to merge with State Route 4 at the western end of the Planning Area. A loop is provided at the San Marco development. To enhance north-south connectivity, an overpass of Range Road at State Route 4 is proposed. A connection between Century Boulevard and California Avenue is also provided.

DOWNTOWN

To achieve a concentration of activity, a reduced area for commercial development is provided (Figure 6.3-2). Residential and employment-oriented uses east of Downtown are also proposed. Key aspects include:

- A new shoreline park and residential development east of Bay Harbor Park along East Third Street.
- Residential uses at a mix of densities along Harbor Street; existing industrial uses east of the Village at New York Landing will be redeveloped with residential uses to strengthen neighborhoods.
- Commercial uses are limited to Railroad Avenue and East Third Street. East Tenth Street will be redeveloped with residential uses.
- Vacant land in the industrial area east of Downtown will be replaced by employment centers, with open space acting as buffers between residential uses and employment centers.
- The former Sacramento-Northern Railroad right-of-way will become a linear park, with a larger central park at its eastern terminus. New streets will facilitate access within and between the new uses east of Downtown.

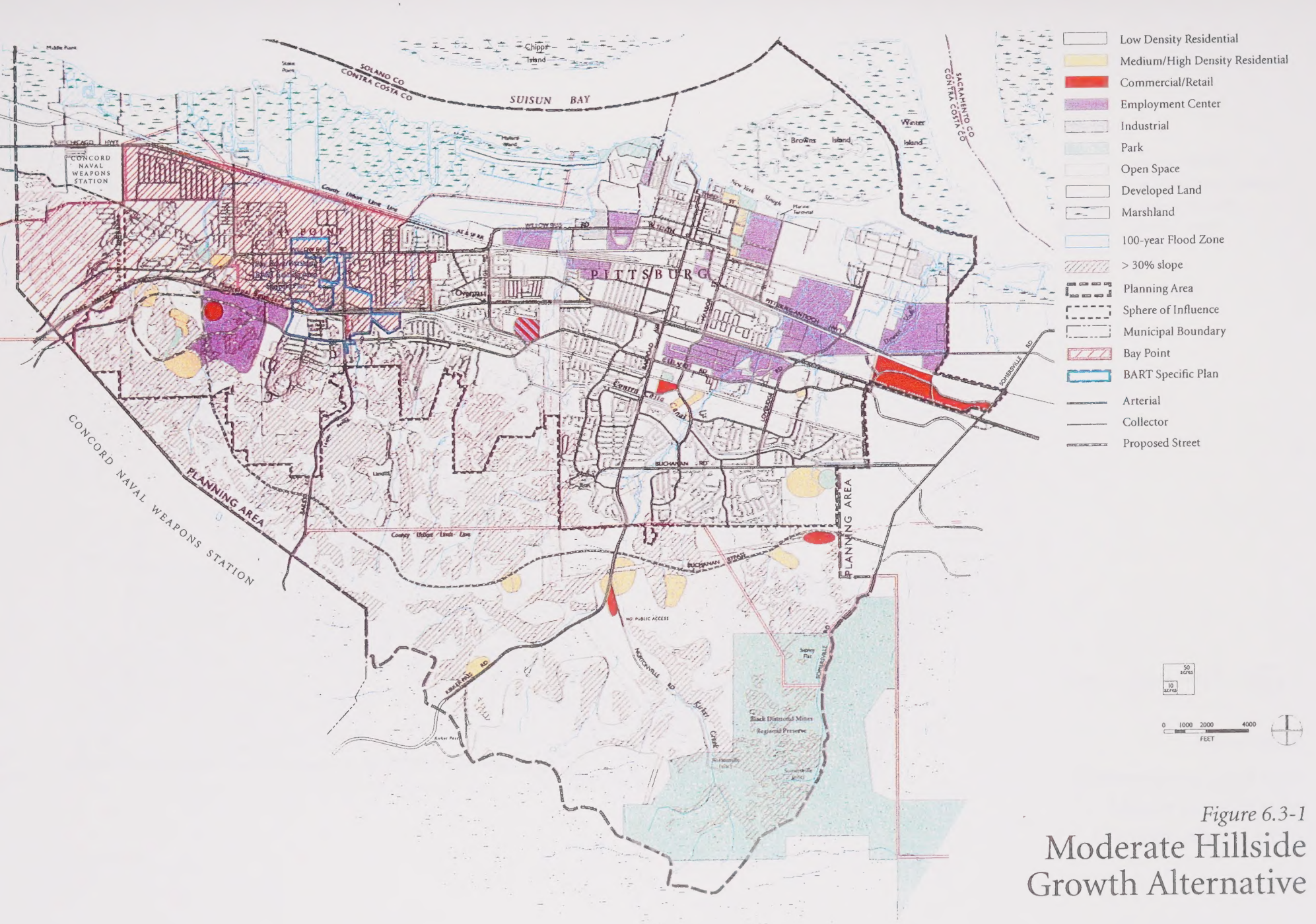

Figure 6.3-1

Moderate Hillside Growth Alternative

Figure 6.3-2

Downtown Land Use Moderate Hillside Growth Alternative

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6.4 ALTERNATIVE 4: INFILL/MAXIMUM HILLSIDE PRESERVATION

This alternative maximizes hillside preservation and infill development (Figure 6.4-1). The existing urban edge, with the addition of sites that already have development entitlements, forms the Planning Area's ultimate urban boundary. Key features include:

- No new hillside development is proposed. The only growth area is a waterfront mixed-use neighborhood west of the Southern Energy power plant.
- This alternative would result in the conversion of the least amount of land (1,670 acres) to urban uses; however, average residential densities (8.8 units per gross acre) are much higher; minimum densities may need to be established to achieve plan density targets.
- A greater mix of uses in different neighborhoods is proposed, with commercial and employment-generating uses and housing at various densities dispersed throughout the City, promoting integrated neighborhoods.
- Intensive redevelopment is proposed for the Southern Energy power plant, using unbuilt land west of the plant; environmental constraints will have to be negotiated.
- Employment-generating uses are dispersed along State Route 4.
- A BART station is proposed at the Pittsburg/Antioch border.

TRANSPORTATION IMPROVEMENTS

Improvements include traditional street-grid systems within the new waterfront neighborhood and the new neighborhood east of Downtown. A new interchange at State Route 4/Range Road will provide direct access to the waterfront neighborhood. Also included is a Century Boulevard/California Avenue connection. No new streets in the hills are proposed. The future BART station is located near State Route 4 and Century Boulevard, at the Pittsburg/Antioch border.

DOWNTOWN

The focus of Downtown redevelopment is providing increased residential opportunities, redevelopment of the Southern Energy power plant, greater shoreline access, and a concentrated commercial core (Figure 6.4-2). Key aspects include:

- An increase in Downtown population by approximately 7,500 to a total of 12,000, providing support base for a range of commercial uses, such as a supermarket.
- New residential development east of Downtown, mostly on land that is currently vacant, but also resulting from the redevelopment of the Manville site. Most sites are reserved for Low Density Residential use, but Medium/High Density Residential sites are interspersed adjacent to parks. A traditional grid-street layout will provide increased accessibility and connectivity with the surroundings. A 500-foot wide-open space buffer between industrial and residential uses is also shown.
- Redevelopment of the southwest Downtown area (south of West Eight Street and west of Railroad Avenue), with residential uses at a mix of densities. Vacant land in other parts of Downtown is designated Medium/High Density Residential.

- New parks will line both the east and the west waterfront. A large new shoreline park, extending from Bay Harbor Park to the Marine Terminal, will be developed on the east side. On the site of the decommissioned Southern Energy power plant, will be a new "Electric Park"; structures from the plant could be retained to provide a unique ambiance and sense of history. The linear park along the former Sacramento-Northern Railroad right-of-way is extended eastward, to provide a mile-long park traversing Downtown.
- Portions of the Southern Energy power plant adjacent to the western end of Downtown will be redeveloped as Employment Centers.

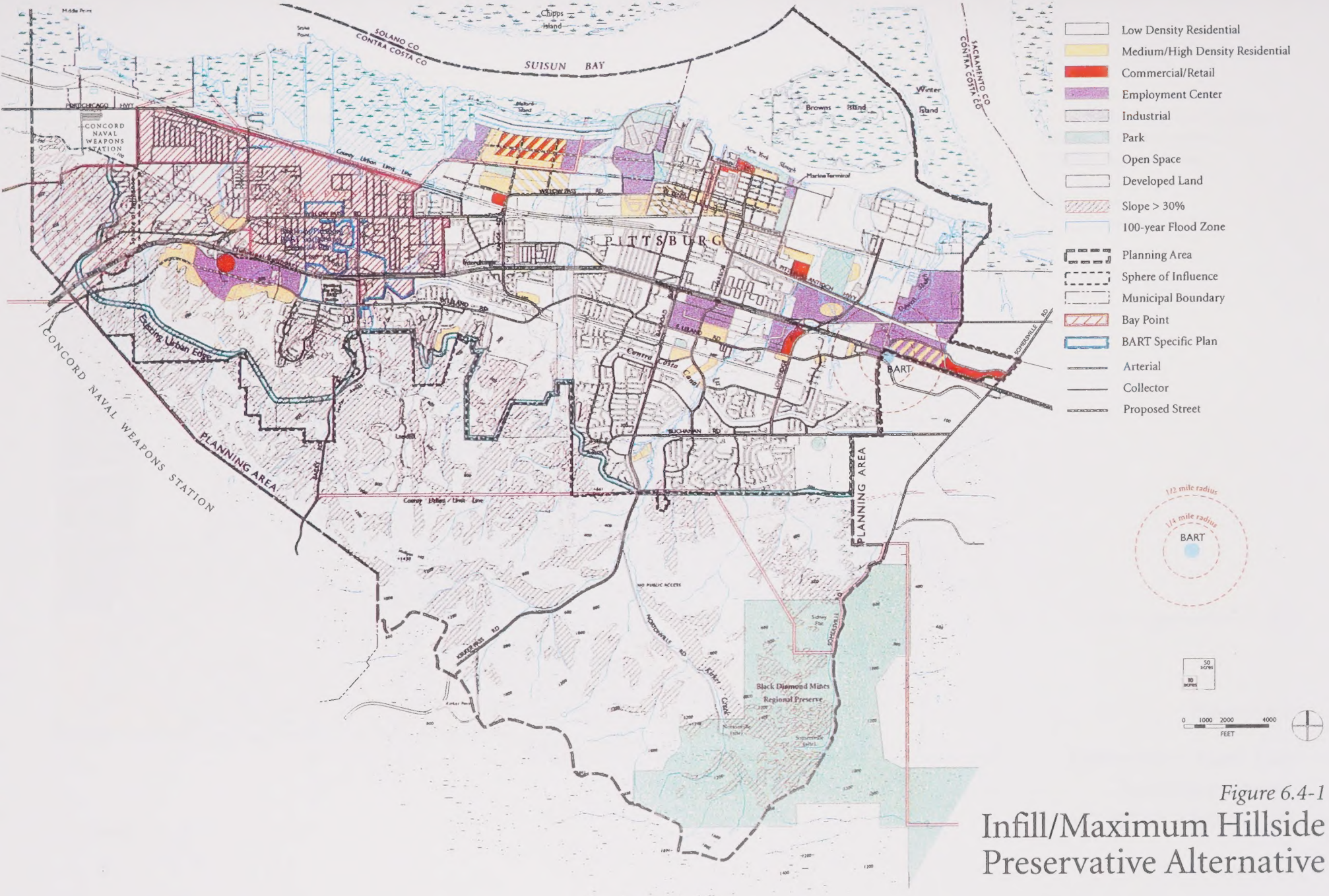

Figure 6.4-1

Infill/Maximum Hillside Preservative Alternative

Figure 6.4-2

Downtown Land Use Infill/Maximum Preservation Alternative

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6.5 COMPARISON OF ALTERNATIVES

This section provides an overview of the impacts that each alternative may have on the City of Pittsburg. Impacts in the following areas are discussed:

- Land Use;
- Community Character;
- Transportation;
- Air Quality;
- Parks, Open Space, and Agricultural Resources;
- Public Schools;
- Fire Safety and Emergency;
- Water, Wastewater and Solid Waste;
- Biological Resources;
- Historical and Cultural Resources;
- Hazardous Wastes;
- Geology, Soils and Seismic Hazards;
- Drainage, Flooding and Water Quality;
- Noise; and
- Telephone, Cable and Energy

LAND USE

Table 6.5-1 shows land acreage by use (including all infill and new growth areas) converted to urban uses in each Alternative.

- *Proposed General Plan.* Approximately 2,000 acres of land converted to urban uses – 1,500 acres to residential and 500 acres to commercial uses.
- *No Project Alternative.* Based upon the 1988 General Plan, buildout from existing (2000) conditions includes nearly 4,000 acres of residential land and 1,800 acres of industrial land.
- *County Urban Limit Line (1996).* Provides 3,200 acres of residential land and 600 acres of commercial land available for buildout.
- *Moderate Hillside Growth.* Allocates 2,400 acres of residential land and 950 acres of commercial land for development of urban uses.
- *Infill/Maximum Hillside Preservation.* While resulting in the least land consumption, this alternative provides 1,400 residential acres and 600 commercial acres for buildout.

Table 6.5-1
Buildout of Alternatives in Acres, Pittsburg

	Low Density Residential	*Med/High Density Residential*	*Residential Sub-Total*	*Retail Commercial*	*Business Commercial*	*Industrial*	*Commercial & Industrial Sub-Total*	*Parks & Recreation*	*Open Space*	*Parks & Open Space Sub-Total*	***Total***
Existing (2000)	2,076	374	2,450	420		1,515	1,935	314	5,226	5,540	**9,925**
New Development											
Proposed General Plan	2,403	446	2,849	153	404	23	580	2,366	3,886	6,252	**9,682**
No Project	2,984	926	3,910	130	0	1,785	1,915	16	0	16	**5,841**
County Urban Limit Line	2,820	350	3,170	150	440	180	770	-250	6,560	6,310	**10,250**
Moderate Hillside Growth	2,160	270	2,430	150	800	-80	870	680	6,970	7,650	**10,950**
Infill/Max. Hillside Preservation	910	470	1,380	10	590	-300	300	150	8,530	8,680	**10,360**
Buildout											
Proposed General Plan	4,479	820	5,299	573	404	1,538	2,515	2,680	9,112		**19,606**
No Project	5,060	1,300	6,360	550	0	3,300	3,850	330	5,226	5,556	**15,766**
County Urban Limit Line	4,896	724	5,620	570	440	1,695	2,705	64	11,786	11,850	**20,175**
Moderate Hillside Growth	4,236	644	4,880	570	800	1,435	2,805	994	12,196	13,190	**20,875**
Infill/Max. Hillside Preservation	2,986	844	3,830	430	590	1,215	2,235	464	13,756	14,220	**20,285**

Source: Dyett & Bhatia,2000.

Housing & Population

Table 6.5-2 shows housing units and population that would result under each alternative:

- *Proposed General Plan.* Accommodates 11,000 additional housing units and 34,000 residents, resulting in a total of over 28,000 housing units and 83,000 population.
- *No Project Alternative.* The 1988 City of Pittsburg General Plan provides the largest amount of residential land available for urban development – resulting in a buildout supply of over 37,000 housing units, and 112,000 population.
- *County Urban Limit Line (1996).* Allows a total of 36,000 housing units and 110,000 population.
- *Moderate Hillside Growth.* A slightly higher growth rate than the Proposed Plan – 31,000 housing units and 97,000 population.
- *Infill/Maximum Hillside Preservation.* Provides residential acreage for buildout of approximately 28,000 housing units. Residential densities in the *Infill/Maximum Hillside Preservation* would be nearly twice as high as in the other Alternatives. Buildout population estimates would reach 85,000.

Table 6.5-2
Buildout of Alternatives: Housing & Population, Pittsburg SOI

	Housing Units[1]			Population		
	Low Density Residential[2]	Med/High Density Residential[3]	Total Housing Units	Low Density Residential[2]	Med/High Density Residential[3]	Total Population
Existing (2000)	10,276	6,059	16,335	32,884	16,965	49,848
New Development						
Proposed General Plan	8,170	8,064	16,234	26,145	22,579	48,724
No Project	11,229	9,411	20,640	35,932	26,351	62,284
County Urban Limit Line	6,400	5,400	11,800	20,480	15,120	35,600
Moderate Hillside Growth	4,100	4,100	8,200	13,120	11,480	24,600
Infill/Max. Hillside Preservation	3,200	7,191	10,391	10,240	20,135	30,375
Buildout						
Proposed General Plan	18,446	14,123	32,569	59,028	39,544	98,572
No Project	21,505	15,470	36,975	68,816	43,316	112,132
County Urban Limit Line	24,970	11,077	36,047	79,903	31,016	110,919
Moderate Hillside Growth	21,604	9,853	31,457	69,132	27,589	96,720
Infill/Max. Hillside Preservation	15,229	12,913	28,142	48,732	36,157	84,888

1 Residential housing unit projections reduced by 15% to account for vacancies and site inefficiencies.
2 Low Density Residential assumes 4 housing units per acre and 3.2 persons per household.
3 Medium/High Density Residential assumes 18 housing units per acre and 2.8 persons per household.

Source: Dyett & Bhatia, 2000.

Building Area & Employment

Table 6.5-3 shows proposed building area and employment growth under each of the land use Alternatives.

- *Proposed General Plan.* Generates over 20,000 new jobs on 21 million square feet of non-residential land, for a buildout employment base of 45,000 jobs.
- *No Project Alternative.* Full buildout under the existing General Plan would result in approximately 46,500 jobs, heavily weighted within the industrial sectors.
- *County Urban Limit Line (1996).* Full buildout would result in nearly 28 million square feet of non-residential land, and a total of just over 50,000 jobs.
- *Moderate Hillside Growth.* Would provide development capacities enabling high job growth – 60,600 jobs on 27 million square feet of non-residential space.
- *Infill/Maximum Hillside Preservation.* Employment growth very similar to the Proposed General Plan – a total of 46,000 jobs on 21 million square feet of non-residential land.

Table 6.5-3
Buildout of Alternatives: Building Area & Employment, Pittsburg SOI

	Building Area (square feet)[1]				Employment			
	Retail Commercial[2]	Business Commercial[3]	Industrial[4]	Total Building Area	Retail Commercial[2]	Business Commercial[3]	Industrial[4]	Total Employment
Existing (2000)	3,366,317	0	10,558,944	13,925,261	12,241	0	11,732	23,973
New Development[5]								
Proposed General Plan	1,601,490	5,638,157	157,622	7,397,269	5,824	14,095	175	20,094
No Project	1,359,072	0	12,440,736	13,799,808	4,942	0	13,823	18,765
County Urban Limit Line	1,568,160	6,133,248	1,254,528	8,955,936	5,702	15,333	1,394	22,429
Moderate Hillside Growth	1,568,160	11,151,360	-557,568	12,161,952	5,702	27,878	-620	32,961
Infill/Max. Hillside Preservation	104,544	8,224,128	-2,090,880	6,237,792	380	20,560	-2,323	18,617
Buildout[5]								
Proposed General Plan	4,967,807	5,638,157	10,716,566	21,322,530	18,065	14,095	11,907	44,067
No Project	4,725,389	0	22,999,680	27,725,069	17,183	0	25,555	42,738
County Urban Limit Line	4,934,477	6,133,248	11,813,472	22,881,197	17,944	15,333	13,126	46,403
Moderate Hillside Growth	4,934,477	11,151,360	10,001,376	26,087,213	17,944	27,878	11,113	56,935
Infill/Max. Hillside Preservation	3,470,861	8,224,128	8,468,064	20,163,053	12,621	20,560	9,409	42,591

1 Commercial and Industrial building area projections reduced by 20% to account for vacancies and site inefficiencies.
2 Retail Commercial assumes 0.3 Floor Area Ratio and 275 square feet per employee.
3 Business Commercial assumes 0.4 Floor Area Ratio and 400 square feet per employee.
4 Industrial assumes 0.2 Floor Area Ratio and 900 square feet per employee.
5 Bay Point land assumes 30% for business, 45% retail, 25% industrial. These are based upon the Contra Costa Luis Projections, 1998.

Source: Dyett & Bhatia, 2000.

COMMUNITY CHARACTER

A viewshed analysis, from four viewpoints north of State Route 4, was conducted for the General Plan Update. In Figure 4.2-2, regions that indicate areas visible from at least one of the viewpoints are identified in purple. Green regions indicate areas visible from all four of the viewpoints.

The alternatives contain unique differences that would impact hillside views:

- *No Project Alternative.* Existing urban form would change, as guided by the 1988 General Plan, allowing development on hillside areas. Ridgeline protection under the 1988 General Plan is less stringent than the Proposed Plan, and thus development on hillsides may impact hillside views. The *No Project* alternative fails to protect key visual elements of the City's character such as the shoreline, hillside and open space from the impacts of new development.
- *County Urban Limit Line (1996).* Low Density Residential areas are located primarily outside City limits on hillsides and would be visible from State Route 4. Areas of steep slopes (greater than 30 percent) are interspersed throughout hillside residential, and preserved as Open Space. Medium and high density residential areas are concentrated around the BART Station at Railroad Avenue and thus, would promote Downtown living and transit use. A greater proportion of the views in the hillsides will be blocked as a result of development in comparison to those views in the other alternatives.
- *Moderate Hillside Growth.* Buffers between residential uses and employment centers east of Downtown, will help integrate the differing uses with each other. The buffers will act to lessen the impacts of a land use such as employment centers, on adjacent uses such as residential, and thus increase compatibility between differing uses. Consideration of topographic and natural constraints by the medium/high rise residential development and employment centers in the hillside area will soften the edge between the development and low density residential, by creating curved edges between the two uses. A higher degree of views in the hillsides will be maintained from all viewpoints in comparison to the County Urban Limit Line (1996), however a great proportion of the southeast Planning Area will be developed, thus reducing the natural views in this region.
- *Infill/Maximum Hillside Preservation.* A greater mix of uses within the neighborhoods – including commercial, employment generating uses, and a variety of housing densities – will promote integrated, diverse neighborhoods. The traditional grid-street structure will increase accessibility, connectivity and promote pedestrian activity between the neighborhoods. Development is maintained within the SOI, and thus protects views of the hillsides.
- *Proposed General Plan.* Low density residential development is concentrated in the southwest hills. Medium and high density residential is proposed adjacent to employment and commercial centers, BART Stations, and the Downtown core. Views in the hillsides on major ridgelines are maintained as a result of buffering and urban design guidelines. As a result, viewsheds are maintained, incurring a minimal impact despite development.

TRANSPORTATION

Traffic impact assessment of the alternatives is based on three main factors:

- *Countywide household and employment projections based on land use assumptions in the Contra Costa Transportation Authority (CCTA) East County Traffic Model.* The model projects approximately 486,000 households countywide. Based on an average of 2.7 persons per household, Contra Costa County population will reach 1,307,000, a 63 percent increase over the 1990 population. Total jobs in 2025 are projected to increase by 68 percent to about 511,000.
- *Household and employment projections resulting from land use designations in the alternatives.* Development by land use resulting from the alternatives was translated into demographic characteristics (such as households, population, and employment) and used as input for the CCTA's East County Model.
- *Assumed roadway improvements for each of the Alternatives.* Assumed roadway improvements under each alternative include both already planned/funded improvements and additional improvements appropriate to serve new development. (See Table 6.5-4)

Table 6.5-4
Assumptions for Roadway Improvements, Pittsburg Planning Area

Regional Improvements	
	• Widening of State Route 4 to 6 lanes, with 2 high-occupancy vehicle (HOV) lanes
Local Improvements	
No Project	• New arterial street from Bailey Road to Somersville Road (extended Buchanan Bypass)
	• Extension of West Leland Road to Avila Road
	• Extension of Willow Pass Road south of State Route 4 to Bailey Road
	• Extension of Century Boulevard south to Somersville Road
	• Extension of West Tenth Street east to Loveridge Road
County Urban Limit Line (1996)	• Street "A" extension between West Leland Road extension to Bailey Road
	• North Park Plaza connection between California Avenue and Century Blvd
	• New collector street serving hillside areas west of Kirker Pass Road
Moderate Hillside Growth	• Range Road overpass for State Route 4 (no interchange ramps)
	• North Park Plaza connection between California Avenue and Century Blvd
	• Buchanan Road Bypass between Kirker Pass Road and Somersville Road
	• Street "A" extension between West Leland Road extension to Bailey Road
	• Street "A" extension between Bailey Road and Kirker Pass Road
Infill/Max. Hillside Preservation	• New interchange at Range Road and State Route 4
	• New collector street serving areas north of Willow Pass Road
	• North Park Plaza connection between California Avenue and Century Blvd
Proposed General Plan	• Extension of Leland Road to the western City Limit
	• Extension of Willow Road south of State Route 4 interchange to Bailey Road
	• Proposed Buchanan Bypass along southeast City Limit.
	• North Park Plaza connection between California Avenue and Century Blvd
	• Proposed Range Road/State Route 4 interchange.

Source: Fehr & Peers, 2000; Dyett & Bhatia, 2000

In addition to roadway improvements, several of the alternatives include extension of Bay Area Rapid Transit (BART) service further east. The *Proposed General Plan* and *County Urban Limit Line (1996)* alternatives assume extension of BART to a new station at Railroad Avenue, while the *Infill/Maximum Hillside Preservation* alternative assumes extension of BART to a new station at the Century Boulevard/State Route 4 crossing. However, current BART forecasts indicate that ridership increases resulting from BART extensions in the East County will be extremely moderate, and not significantly affect traffic volumes in Pittsburg.

Traffic Projections

Substantial increases in traffic are projected for key roadway segments in Pittsburg. Traffic volumes on State Route 4 will double over the next 25 years, due partly to growth in Pittsburg. Increased traffic volumes are primarily attributable to substantial growth in the Eastern Contra Costa County communities of Antioch, Oakley, Brentwood, and other communities along State Route 4.

The *County Urban Limit Line (1996)* alternative would result in the greatest volumes – about six percent more than *Moderate Hillside Growth* alternative and five percent more than *Infill/Maximum Hillside Preservation* alternative. While the *County Urban Limit Line (1996)* alternative has higher traffic volume on most roadway segments, the other two alternatives have greater traffic impacts in areas where new growth is directed. Many of the key roadways in Pittsburg are projected to operate at Level of Service (LOS) F due to substantial growth projections in East County. In particular, State Route 4 will experience traffic that exceeds capacity by up to 50 percent. The *Moderate Hillside Growth* alternative would result in worse LOS along hillside-bound arterials, while the *Infill/Maximum Hillside Preservation* alternative would result in worse LOS in Downtown and the Harbor Street employment node.

AIR QUALITY

Under each of the alternatives, development would result in construction-related air quality impacts and long-term changes in emissions of criteria air pollutants. Short-term construction dust would be expected to affect the immediate vicinities of construction sites, but would be reduced to less than significant with implementation of appropriate dust-abatement measures. Over the long-term, criteria air pollutant emissions would vary among the alternatives principally due to the varying levels of vehicular activity associated with different land uses proposed for development.

PARKS, OPEN SPACE, AND AGRICULTURAL RESOURCES

Parks and Open Space

Pittsburg's park acreage exceeds adopted standards and would continue to do so under the *No Project* alternative. Substantial park acreage would be added to the City under the *Proposed General Plan*. The *County Urban Limit Line* (1996) alternative would have less park acreage than the other alternatives with a net reduction in space for recreational use.

- *No Project Alternative.* The Planning Area contains 314 acres of parks, with an average of 6.2 acres per 1,000 residents. Open space accounts for an additional 5,226 acres. The Planning Area encompasses two larger parks: Stoneman Park and Black Diamond Mines Regional Preserve.
- *County Urban Limit Line (1996).* The alternative encompasses smaller parks dispersed throughout the Planning Area, and produces a reduction in the net acreage of parks. There are many neighborhoods still unserved by green space. There are no proposed waterfront parks as in other latter alternatives, but instead, focuses on the expansion of Central Harbor Park.
- *Moderate Hillside Growth.* This alternative includes eight parks interspersed in residential pockets in Bay Point and Pittsburg. Focus of this alternative is on a larger central park at the eastern-most terminus of the former Sacramento-Northern Railroad linear park.

- *Infill/Maximum Hillside Preservation.* A total of eight parks are scattered throughout the Planning Area, including the shoreline, and east and west of the Downtown. In contrast with the other alternatives, there are no added parks to the Bay Point area and as a result, many neighborhoods would not have easy park access. An Electric Park, on the decommissioned Southern Energy site by the waterfront, would be developed providing a unique ambience and sense of history.
- *Proposed General Plan.* This alternative allocates the greatest acreage to parks and open space. Parks are scattered throughout the Downtown, new residential neighborhoods in the southwest hills, and Bay Point. Previously deemed open space, Browns Island Regional Shoreline is re-classified, allotting an additional 700 acres to parks and recreation.

Table 6.5-5 shows the change in proposed parks and open space acreage under each alternative.

Table 6.5-5
Proposed Parks and Open Space (changes in acreage)

	Parks and Recreation	*Open Space*	*Total*
No Project	16	0	16
County Urban Limit Line (1996)	n/a	6,560	6,522
Moderate Hillside Growth	680	6,970	7,650
Infill/Max. Hillside Preservation	268	8,530	8,798
Proposed General Plan	2,366	3,886	6,252

Source: Dyett & Bhatia, 2000.

Agricultural Resources

Agricultural lands within the hills, south of the City, are used predominantly for cattle grazing. A small portion of this land, on the edge of City limits north of the proposed Buchanan Bypass, is considered to be farmland of local importance. According to the California Department of Conservation, locally important farmland is typically used for livestock grazing; however, it is capable of producing dryland grain on a two-year fallow. Only the *No Project* and the *Infill/Maximum Hillside Preservation* alternatives avoid development on this piece of locally important farmland.

PUBLIC SCHOOLS

Schools are currently operating at or above capacity. Table 6.5-6 shows total student enrollment in Pittsburg for each alternative.

- *No Project Alternative.* The Pittsburg and Mount Diablo school districts would continue to operate their schools at capacity, if not slightly above. Enrollment figures are based upon buildout projections in the 1988 General Plan.
- *County Urban Limit Line (1996).* Both proposed schools are critical in accommodating the new population growth from the proposed residential development in the southwest hills and south of Buchanan Road. Development west of Southern Energy power plant will most likely attend existing schools. Student enrollment projected to be the highest of the "build" alternatives.

- *Moderate Hillside Growth.* This alternative would result in the smallest increase in population at buildout. However, the addition of 8,200 housing units will contribute to increases in school needs, above existing capacity.

  Both of the proposed school sites identified by the General Plan have been designated as other uses within this alternative's plan: the land for the proposed school on West Leland Road is designated for a mixed commercial/employment center; and the land for the proposed school near Buchanan Road is designated for Medium/High Density Residential.

- *Infill/Maximum Hillside Preservation.* The only residential area would be a waterfront mixed-use neighborhood, west of the Southern Energy power plant. This alternative converts the least amount of land to urban uses, however average residential densities are much higher contributing an additional 10,300 new housing units. The new housing units, again will increase school needs, and thus will require additional schools. New education facilities will be critical in accommodating the new growth within the planning area boundary.

- *Proposed General Plan.* The Proposed General Plan results in a moderate increase in population in comparison to the other alternatives. With the addition of 11,242 new housing units, school enrollment will increase substantially necessitating the need for new educational facilities in the southwest hills and south of Buchanan Road.

Table 6.5-6
School-Age Children in Pittsburg Enrolled in Public Schools at Buildout

	No Project	*County Urban Limit Line (1996)*	*Moderate Hillside Growth*	*Infill/Maximum Hillside Preservation*	*Proposed General Plan*
K-5	7,233	7,154	6,238	5,475	5,414
6-8	6,896	56,822	5,948	5,221	5,414
9-12	6,739	6,666	5,813	5,102	5,045
Total	20,868	20,642	18,000	15,798	15,622

Source: Dyett & Bhatia, 2000

FIRE SAFETY AND EMERGENCY

Fire safety and emergency services are assumed to expand in order to meet demand. The need for new fire stations would be based upon location within the 1.5-mile response radii from existing stations.

- *No Project Alternative.* Existing fire stations will accommodate existing and approved growth.
- *County Urban Limit Line (1996).* New development outside of the ULL will create need for new fire stations. This alternative accommodates the largest population of the alternatives, and would thus have the greatest need for increase in emergency and fire services to maintain adequate service levels.
- *Moderate Hillside Growth.* Although this alternative generates the least amount of population growth, new development would be located outside the 1.5-mile response distance of current fire stations. Thus there will be a need for new fire stations to maintain the fire response standard.
- *Infill/Maximum Hillside Preservation.* All growth areas would be within the 1.5-mile response distance of current fire stations. Thus, this alternative is likely to result in the least need for construction of a new fire station within the urban area, or expansion of existing facilities.

- *Proposed General Plan.* New development in the southwest hills will be outside of the 1.5-mile response distance of operating fire stations, and would necessitate construction of a new station or relocation of an existing station (Station 84, 84 or 86).

WATER, WASTEWATER, AND SOLID WASTE

Assuming per capita water use at 180 gallons per day, according to the Water Systems Master Plan (2000), annual water demand is determined using the projected buildout population of each alternative. The *Proposed General Plan* provides the lowest overall water need relative to the alternatives, as shown in Table 6.5-7. The greatest amount of water use has historically taken place over the summer months between June and September (over 45 percent of total water use). Based on this average, peak average monthly water need is also estimated in Table 6.5-7.

Two kinds of water and wastewater infrastructure are needed – extension of lines, pump stations, etc. to serve new development, and capacity for water supply and wastewater treatment. The former is dependent on geographical distribution and amount of development, while the latter largely on amount of development.

- *No Project Alternative.* The highest demands upon water, wastewater and solid waste facilities and services will be made, compared to the proposed alternatives, due to higher population projections. No new growth areas beyond those that have been identified by the 1988 General Plan will be created, and therefore current service levels would be maintained.
- *County Urban Limit Line (1996).* This alternative would also place high demands on water, wastewater and solid waste facilities. The three major growth areas – the southwest hills, Buchanan Road/Nortonville Road area, and Bailey Road/Willow Pass extension – will also require new water and wastewater infrastructure.
- *Moderate Hillside Growth.* The Moderate Hillside Growth alternative will result in moderate population increases, and comparatively moderate water and wastewater infrastructure expansion.
- *Infill/Maximum Hillside Preservation.* Development would occur within established areas, thereby resulting in the lowest need for infrastructure creation. Instead, it will facilitate the need for infrastructure to accommodate the additional development.
- *Proposed General Plan.* With moderate increases in population, the greatest growth will occur in the Southwest Hills and Woodlands areas, and will require water, wastewater, and solid waste infrastructure. This alternative will require moderate overall water need.

Table 6.5-7
Water Needs Under Alternatives and Proposed General Plan

	No Project	County Urban Limit Line (1996)	Moderate Hillside Growth	Infill/Maximum Hillside Preservation	Proposed General Plan
Average Annual Water Need (mgd)[1]	20.2	20.0	17.4	15.3	17.7
Estimated Peak Average[2] Water Need (mgd)[1]	29.3	29.0	25.2	22.2	25.7

[1]*million gallons per day - based on the 200 Water Services Master Plan estimate of 180 gallons per capita per day.*

[2]*Based upon peak water use in summer months (June to September) – 45% above normal water need.*

Source: Dyett & Bhatia, 2000.

BIOLOGICAL RESOURCES

There are several ecologically-sensitive areas in Pittsburg that serve or could serve as habitat for special status species. These include, but are not limited to, Browns Island and adjacent marshlands, Suisun Bay/New York Slough waterfront, Black Diamond Mines, southern hills, and Kirker Creek. Impacts of alternatives on these areas would include:

- *No Project.* Approved and new development maintained within the Planning Area boundaries, thereby minimizing development impacts on sensitive habitat areas.
- The *County Urban Limit Line (1996)* alternative, *Moderate Hillside Growth* Preservation alternative and *Proposed General Plan* entail development outside the Municipal Boundary. Development on these lands will encounter mudflat and open-water vegetative communities, which are temporarily flooded, and unvegetated areas within the Kirker Creek Watershed. Commercial and Employment Center development west of Sommersville Road will come upon seasonal wetlands/grasslands.
- *Infill/Maximum Hillside Preservation.* While some development will occur in the Kirker Creek Watershed as in the above mentioned alternatives, a great portion of the new development in commercial and employment centers in the Planning Area will occur on wetland/grassland vegetative communities. However, since this alternative is contained within the Planning Area boundaries, preservation of the grasslands habitat within the Kirker Creed Watershed is maximized.

HISTORICAL AND CULTURAL RESOURCES

The portion of the Planning Area extending from the shoreline to State Route 4 has been designated as an area sensitive for Native American resources, by the Northwest Information Center (California State University Sonoma). Other areas of historical Native American existence include the undeveloped portions of the City along the eastern and western boundaries, and lands adjacent to the Pittsburg/Bay Point BART station.

Areas of historical significance are present throughout the Pittsburg area, and include Downtown Pittsburg, New York Slough, the southern hills, along the Planning Area's western boundary, near Mallard Island, and Bay Point north of Willow Pass Road.

With the exception of the *No Project* alternative, all options suggest intensification in the Downtown confluence of Pittsburg and/or New York Slough and thus possess the risk of disrupting historical and

Native American resources. The *Proposed General Plan* however, stipulates that building facades and architecture be preserved in the redevelopment or expansion of historic buildings to ensure minimal cultural and historical loss.

National, State and Local law protects designated historical and archeological sites. New development would therefore not threaten known sites, but could potentially lead to the disruption of currently undiscovered archeological resources. Also, new development (particularly redevelopment of infill sites) could potentially threaten historical structures that have not yet been deemed eligible for the National Register of Historic Places, but are sites of local historical importance.

- *No Project Alternative.* Approved and new development in the historical Downtown core is permitted under the 1986 Downtown Specific Plan.
- *County Urban Limit Line (1996).* The County Urban Limit Line (1996) suggests redevelopment in the Downtown core, western boundary of the Planning Area, southern hills, and undeveloped eastern portion of the Planning Area. This alternative possesses the greatest threat to the Native American and Historical resources in Pittsburg.
- *Moderate Hillside Growth.* Proposed redevelopment in addition to the Downtown core includes the Planning Area's western boundary, southern hills, and undeveloped eastern portions of the Planning area.
- *Infill/Maximum Hillside Preservation.* Threats to the Native American and Historical resources are maintained within the City, and are concentrated in the Downtown core, near Mallard Island, southern hills, and western boundary of the Planning Area.
- *Proposed General Plan.* Intensification is proposed in the Downtown core, while limited development is proposed in the Southwest Hills and Woodlands areas. Both areas possess potential threats to areas sensitive to Native American and historical cultural resources.

HAZARDOUS MATERIALS

The *No Project* alternative would have the least impact of any alternative. The limited amount of new development would mean that contaminated sites--specifically the eight identified by the City--would remain undeveloped, minimizing the risk of exposure to hazardous substances.

None of the identified contaminated sites have been proposed for residential redevelopment in any of the planned alternatives. However, redevelopment options adjacent to the identified sites within the alternatives include employment centers, commercial/retail use, or medium/high density residential.

GEOLOGY, SOILS, AND SEISMIC HAZARDS

New development within the northern portion of the Planning Area, along the Suisun Bay waterfront, would be subject to the risk of earthquake-related damage. Soils in the flat, low-lying northern areas of the City are comprised largely of Bay Mud overlain with fill. They have high shrink-swell potential, high water table, and low strength, characteristics that amplify earthquake waves and ground shaking and liquefaction.

New development in the hillside areas in the southern portion of the Planning Area would be subject to landslide and soil slump hazards, both as a result of saturated soils during winter storms and ground shaking during seismic activity. Hillside development built on slopes greater than 20 percent has increased potential for landslide risks.

- *No Project Alternative.* Limited development is proposed in the southern hills and waterfront areas, thereby minimizing risk due to landslides, soil slumps, and ground shaking activity.
- The *County Urban Limit Line (1996)* alternative, *Moderate Hillside Growth* alternative, and *Proposed General Plan* propose development in the hillside portions of the Planning Area, and will be thus, subject to landslide and soil slump hazards during winter storms and ground shaking activity. Furthermore, in both of the first two alternatives, development in the southwest hills and south of Buchanan Road is proposed on slopes up to 30 percent, thereby increasing the risk of landslides.
- The *County Urban Limit Line* and the *Moderate Hillside Growth* alternatives do not propose as extensive development along the waterfront as the *Infill/Maximum Hillside Preservation* alternative does. As a result, development in this alternative, along the waterfront will be exposed to the risk of earth–quake related damage.
- *Proposed General Plan.* Less development will occur along the waterfront in comparison to the *Infill/Maximum Hillside Preservation*, and thus will not pose as great a risk of earthquake related damage.

HYDROLOGY, FLOODING AND WATER QUALITY

A majority of Contra Costa County's creeks and shorelines lie within the 100-year flood plain. Certain portions within the Planning Area, located along the Delta, are particularly susceptible to floods. However, most flood prone areas in Pittsburg are marshland and are not considered for development under the alternatives. Areas within the 100-year and 500-year flood plain include: Browns Island, the shoreline and uninhabited marshland north of the BNSF railroad, portions of the industrial area in northeast Pittsburg, Kirker Creek, and Lawlor Creek.

New development and intensification in any of the alternatives would potentially increase the amount of impervious surface in the City, and therefore generate additional runoff. With the exception of the *No Project* alternative, the alternatives all have comparable impacts on flood conditions, and for the most part avoid the 100- and 500-year floodplains.

- *No Project Alternative.* Approved and new development would be permitted under the 1988 General Plan. Development may result in areas sensitive to high flooding.
- The *County Urban Limit Line (1996) Alternative.* Avoids development in wetlands adjacent to Mallard Island.
- *Moderate Hillside Growth Alternative.* Avoids development in wetlands adjacent to Mallard Island.
- *Infill/Maximum Hillside Preservation Alternative.* Focuses development south of Mallard Island, west of the Southern Energy site, and along New York Slough. The described area is within the 100-year floodplain.
- *Proposed General Plan.* Focuses waterfront development solely along New York Slough. The described area is within the 100-year floodplain.

South of the Pittsburg-Antioch Highway and west of Loveridge Road is a small parcel of land within the 500-year floodplain. In all four of the "build" alternatives, development has been proposed for this site. For the *County Urban Limit Line (1996)* and *Proposed General Plan*, a commercial/retail use has been proposed, while for the *Moderate Hillside Growth* and *Infill/Maximum Hillside Preservation* alternatives, employment centers have been proposed.

NOISE

Noise projections are based upon traffic modeling projections, because roadways are the significant noise generators within Pittsburg. Noise levels will be highest at intersections with high usage. Alternatives with lower levels of housing development or development located further from major noise corridors would provide the least exposure to excessive noise levels.

- *No Project Alternative.* This alternative has the lowest levels of housing development, and therefore would limit potential exposure of new residential uses to noise. Development would continue as directed by the 1988 General Plan.
- *County Urban Limit Line (1996).* Accommodating the largest population with the most low-density residential land, the *County Urban Limit Line* (1996) possesses the greatest risk of exposing residents to excessive levels of noise. New development adjacent to Leland Drive and State Route 4 may also experience high noise levels.
- *Moderate Hillside Growth.* Resulting in the smallest population increase of all the alternatives, the *Moderate Hillside Growth* alternative has the lowest overall residential density and consequently, the least potential to excessive noise exposure. High noise levels may impact development adjacent to State Route 4 and the Buchanan Road Bypass.
- *Infill/Maximum Hillside Preservation.* New residential development maintained to within existing developed areas, and thus, will not be exposing residents to high levels of noise.
- *Proposed General Plan.* Providing a moderate population increase and new housing supply, the Proposed General Plan will possess risks to excessive noise levels.

TELEPHONE, CABLE AND ENERGY

- *No Project Alternative.* Would create less demand for telephone, cable, natural gas and electrical service, compared to the proposed alternatives.
- *County Urban Limit Line (1996).* With the highest degree of growth and new housing supply, the County Urban Limit Line (1996) alternative will necessitate the greatest infrastructure creation and expansion of the alternatives.
- *Moderate Hillside Growth.* In comparison to the other alternatives, the Moderate Hillside Growth provides the smallest increase in population at buildout, but will still develop outside of Planning Area boundaries. As a result, fewer demands will be placed on infrastructure capacity, but infrastructure extensions will be necessary.
- *Infill/Maximum Hillside Preservation.* New housing development is maintained within Planning Area boundaries, and thus will minimize the need for infrastructure creation and instead, will facilitate the need for expansion to accommodate the additional growth.
- *Proposed General Plan.* A moderate population increase in comparison to the other alternatives, the Proposed General Plan will create growth in the Southwest Hills and Woodlands areas, and will require new telephone, cable and energy infrastructure.

6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires identification of an environmentally superior alternative. The *No Project* alternative is the environmentally superior alternative because it would avoid generation of additional adverse impacts created by the proposed project, as shown in Table 6.6-1. Although the *No Project* alternative allows continued build-out of the 1988 General Plan, expanded infill and hillside development under the other alternatives would have greater environmental impacts. Impacts that would be avoided include: increasing pressures on public facilities and services, altering of hillside character, hillside views, decrease in air quality as a result of increase traffic levels and excessive noise levels.

As it is the nature of cities and urban areas to evolve and grow over time, the *No Project* alternative is not feasible. CEQA requires that if the *No Project* alternative is identified as the environmentally superior alternative, then another environmentally superior alternative must be identified. The Proposed General Plan is a blend of the three other alternatives. It encourages mixed-use development, preservation of hillsides and Downtown vitality, while minimizing negative environmental impacts such as traffic congestion, loss of prime agricultural lands, poor air quality, and species and habitat loss.

Table 6.6-1
Comparison of Alternatives

		Relative Impact of Alternatives				
Environmental Impact of Proposed Project (see Chapter 4)		*Proposed GP (After Mitigation)*	*No Project (1988 General Plan)*	*County Urban Limit Line (1996)*	*Moderate Hillside Growth*	*Infill-Max Hillside Preservation*
4.1-a	New development incompatible with adjacent, existing uses.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.1-b	Proposed land uses and policies under the General Plan would be inconsistent with land use designations and urban limit lines in the Contra Costa County General Plan.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.1-c	Reuse/intensification would result in the loss of existing businesses or displace residents.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.2-a	Patterns of new development would promote stronger connections between schools, parks and creeks, commercial centers, and adjacent residential neighborhoods.	Beneficial	Reduced	Reduced	Reduced	Beneficial
4.2-b	New development would block views of hills and major ridgelines.	Less than Significant	Avoided	Significant	Less than Significant	Avoided
4.2-c	New development would alter the visual character of the hillsides.	Less than Significant	Avoided	Significant	Less than Significant	Avoided
4.2-d	The General Plan would result in increased public access to the Suisun Bay waterfront from Downtown Commercial Core and local trails / linear parks.	Significant, and Beneficial	No Benefit	No Benefit	No Benefit	Significant, and Beneficial
4.2-e	Increased residential densities and mixed-use development would be incongruous with existing Downtown character.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant

Table 6.6-1
Comparison of Alternatives

		Relative Impact of Alternatives				
Environmental Impact of Proposed Project (see Chapter 4)		*Proposed GP (After Mitigation)*	*No Project (1988 General Plan)*	*County Urban Limit Line (1996)*	*Moderate Hillside Growth*	*Infill-Max Hillside Preservation*
4.3-a	New urban development would result in increased traffic exceeding Level of Service (LOS) standards for roadway segments and signalized intersections.	Significant	Significant	Significant	Significant	Significant
4.3-b	New urban development and intensification of existing areas may result in increased needs for transit services not available through existing transit services and facilities.	Less than Significant	Significant	Less than Significant	Less than Significant	Less than Significant
4.3-c	New urban development may create additional demand for pedestrian and bicycle connections and facilities.	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
4.4-a	Development under the General Plan would lead to increased emissions of carbon monoxide, ozone precursors, and particulate matter and degradation of local air quality.	Significant	Avoided	Significant	Significant	Significant
4.4-b	The General Plan is inconsistent with the 1997 Clean Air Plan.	Significant	Significant	Significant	Significant	Significant
4.4-c	Construction, grading, and excavation associated with new development and reuse may generate dust and other air particulates.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.5-a	Future development may create a shortage of neighborhood park facilities accessible to all residents.	Less than Significant	Avoided	Significant	Less than Significant	Less than Significant
4.5-b	New residential development in southern hillsides would reduce physical and visual access to surrounding open space areas.	Less than Significant	Avoided	Significant	Less than Significant	Avoided
4.5-c	Expansion of residential development into the southern hills would reduce (prime, state, local) farmland.	Less than Significant	Avoided	Less than Significant	Less than Significant	Avoided
4.6-a	New residential development in the southern hills would generate additional student enrollment that would need to be accommodated by Mount Diablo Unified School District.	Less than Significant	Avoided	Significant	Less than Significant	Avoided
4.6-b	New development would generate additional high school student enrollment beyond current capacity.	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
4.7-a	New residential development in hillside areas may be exposed to the risk of wildland and urban-interface fire hazards.	Less than Significant	Avoided	Less than Significant	Less than Significant	Avoided
4.7-b	Some new residential development in the southern hills would not be accessible by fire personnel within established response times.	Less than Significant	Avoided	Significant	Significant	Avoided

Table 6.6-1
Comparison of Alternatives

		Relative Impact of Alternatives				
Environmental Impact of Proposed Project (see Chapter 4)		*Proposed GP (After Mitigation)*	*No Project (1988 General Plan)*	*County Urban Limit Line (1996)*	*Moderate Hillside Growth*	*Infill-Max Hillside Preservation*
4.8-a	New development would increase demand for water, which may exceed the City's existing distribution and treatment capacities.	Less than Significant	Avoided	Significant	Less than Significant	Less than Significant
4.8-b	New development may generate wastewater flows that exceed the City's collection and treatment capacities.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.8-c	New development would generate additional solid waste, as well as demand for recycling and composting services.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.9-a	Expansion of urban land uses under the General Plan, particularly in the southern hills, would result in loss of sensitive habitat areas.	Less than Significant	Avoided	Less than Significant	Less than Significant	Avoided
4.9-b	Redevelopment and expansion of marine commercial and industrial uses along the Suisun Bay/Delta shoreline would result in degradation of wetlands habitat.	Less than Significant	Avoided	Avoided	Avoided	Significant
4.9-c	New development may result in the introduction and spread of non-native invasive plant species.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.10-a	Redevelopment within Downtown has the potential to adversely affect identified historic resources within New York Landing Historical District.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.10-b	Excavation and construction associated with future development in the City may disrupt an unidentified prehistoric or archeological site.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.10-c	New and redevelopment activities may disturb cultural resources significant to local community, ethnic, or social groups.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.11-a	Land use distribution could result in location of additional industrial and other facilities with potential for generating hazardous wastes or spills.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.11-b	Expansion of urban land uses and regional roadways may increase exposure to hazardous materials, wastes, and potential spill incidents during transport.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.12-a	New development in the southern hills would expose residents to landslide, soil slump, and other geologic hazards.	Less than Significant	Avoided	Significant	Less than Significant	Avoided
4.12-b	Redeveloped properties along the Suisun Bay waterfront would be subject to liquefaction, tsunami, and other seismic hazards.	Less than Significant	Avoided	Avoided	Avoided	Significant

Table 6.6-1
Comparison of Alternatives

		Relative Impact of Alternatives				
Environmental Impact of Proposed Project (see Chapter 4)		*Proposed GP (After Mitigation)*	*No Project (1988 General Plan)*	*County Urban Limit Line (1996)*	*Moderate Hillside Growth*	*Infill-Max Hillside Preservation*
4.12-c	New and Infill development sites would both be subject to ground shaking and other seismic hazards.	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
4.13-a	Land use distribution may result in exposure of new residents near creeks and drainage channels to flooding hazards.	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
4.13-b	New urban land uses may result in increased non-point-source pollutant levels in stormwater runoff and the regional drainage system.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.13-c	New urban development may increase the amount of stormwater runoff, affecting drainage in Kirker Creek and increasing downstream flooding.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.13-d	New development projects may induce construction-related erosion, sedimentation, and accumulation of debris.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.14-a	Land use distribution would result in location of noise-sensitive uses in areas of high noise levels.	Less than Significant	Avoided	Significant	Less than Significant	Less than Significant
4.14-b	New development would increase traffic volumes along existing roadways and introduce traffic along new roadways, thereby creating roadside noise levels in excess of 60 dB Ldn.	Less than Significant	Avoided	Less than Significant	Less than Significant	Less than Significant
4.14-c	Existing noise-sensitive uses may be exposed to construction-related noise.	Less than Significant	Avoided	Significant	Less than Significant	Less than Significant
4.15-a	Intensification and expansion of land uses in the City would result in substantial new energy requirements.	Less than Significant	Avoided	Significant	Less than Significant	Less than Significant

Source: Dyett & Bhatia, 2000.

Developed in 2000, the *Proposed General Plan* is judged to be better, since it minimizes the environmental impacts incurred by the proposed areas of development. In particular, the *No Project*, *County Urban Limit Line* and *Moderate Hillside Growth* alternatives do not address objectives of Downtown and waterfront revitalization, nor would they achieve the beneficial effects identified within the EIR. The *Infill/Maximum Hillside Preservation* alternative avoids many impacts associated with hillside development since it does not propose any development outside of the urban edge; however it would necessitate reuse/intensification at higher intensities and greater displacement of residents and businesses.

The *Proposed General Plan* accommodates residential and non-residential development while minimizing negative impacts on the natural environment. It entails less development on environmentally sensitive areas in hillsides. The alternative, in comparison to the *No Project* and "build" alternatives, has the following environmental benefits:

- Preservation of ridgelines and hillside views;
- Improved street connections, thereby alleviating automobile congestion;
- Increase in mixed-use districts, which will provide greater opportunities for walking, biking and transit use;
- Increase in land allocated to parks and open space;
- Reduction in traffic congestion and consequent improved air quality; and
- Improved vitality in the Downtown and waterfront core.

Appendix A: Intersection Improvements

Figure 1: Unmitigated 2025 Lane Control and Configuration

Figure 2: 2025 PM Peak Hour Volumes

Figure 3: Unmitigated 2025 PM Intersection Levels of Service

Figure 4: Mitigated Lane Control and Configuration

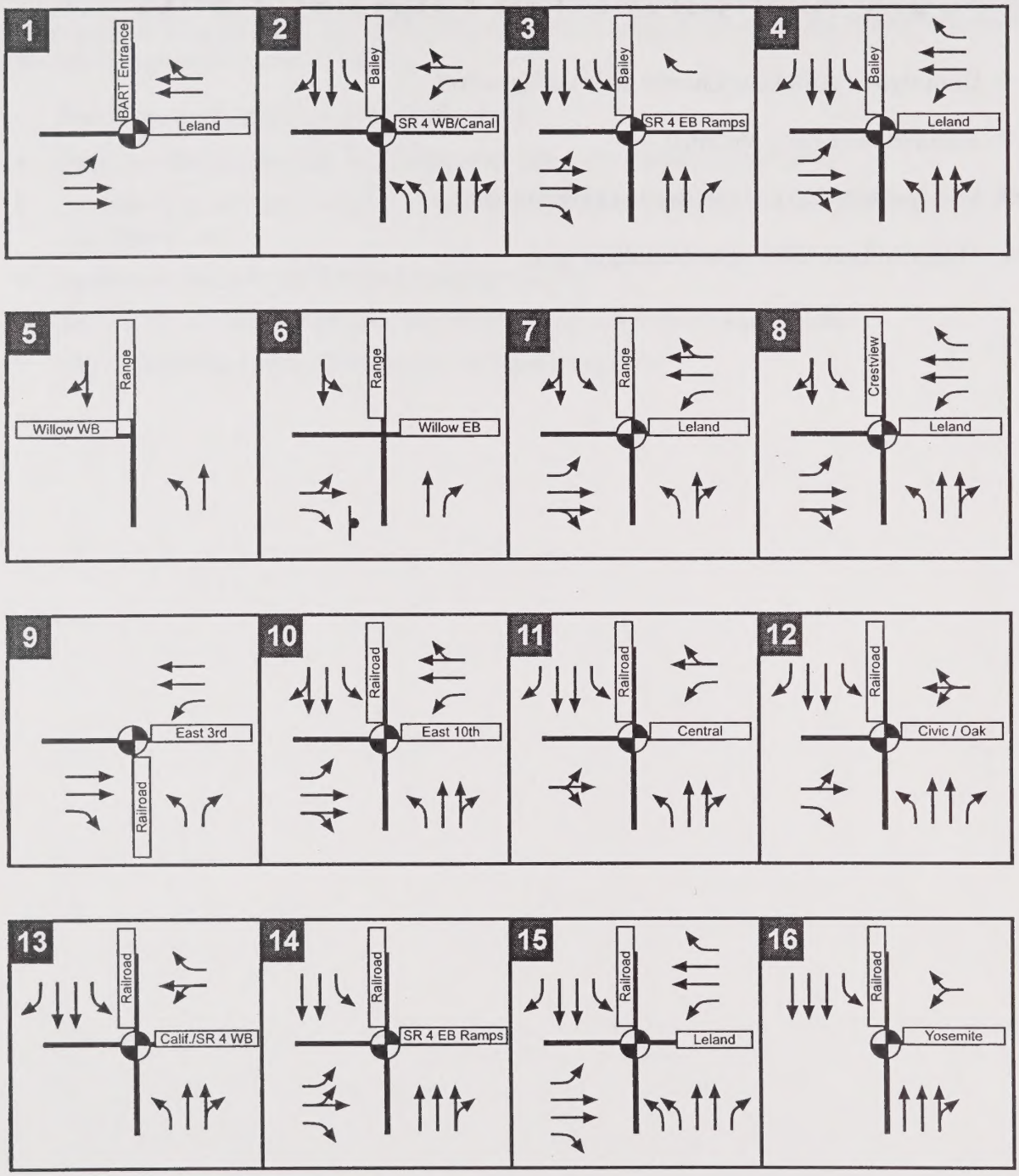


Figure 1A
1125-23B

UNMITIGATED 2025
LANE CONTROL AND CONFIGURATION

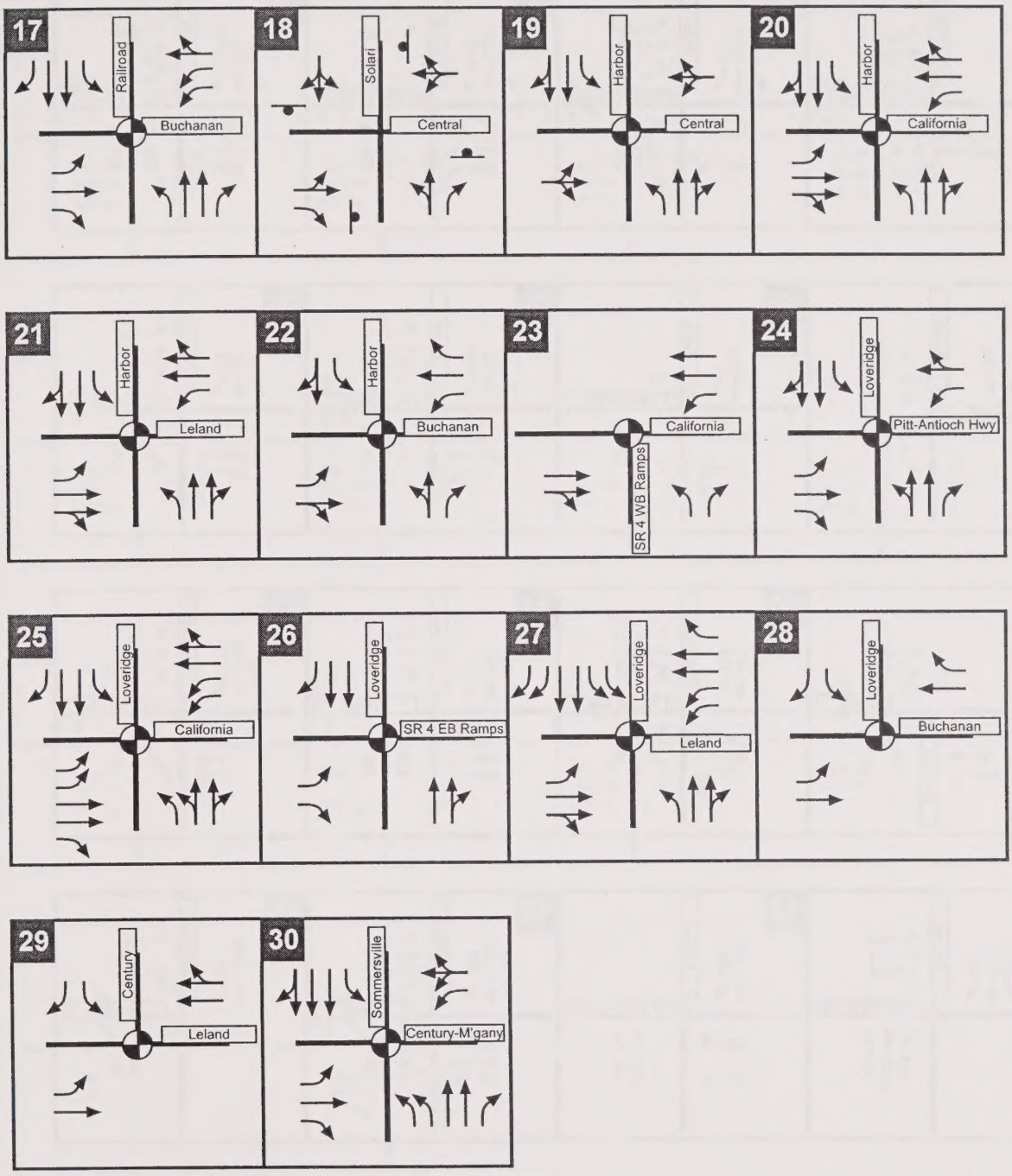


Figure 1B
1125-24B

UNMITIGATED 2025
LANE CONTROL AND CONFIGURATION

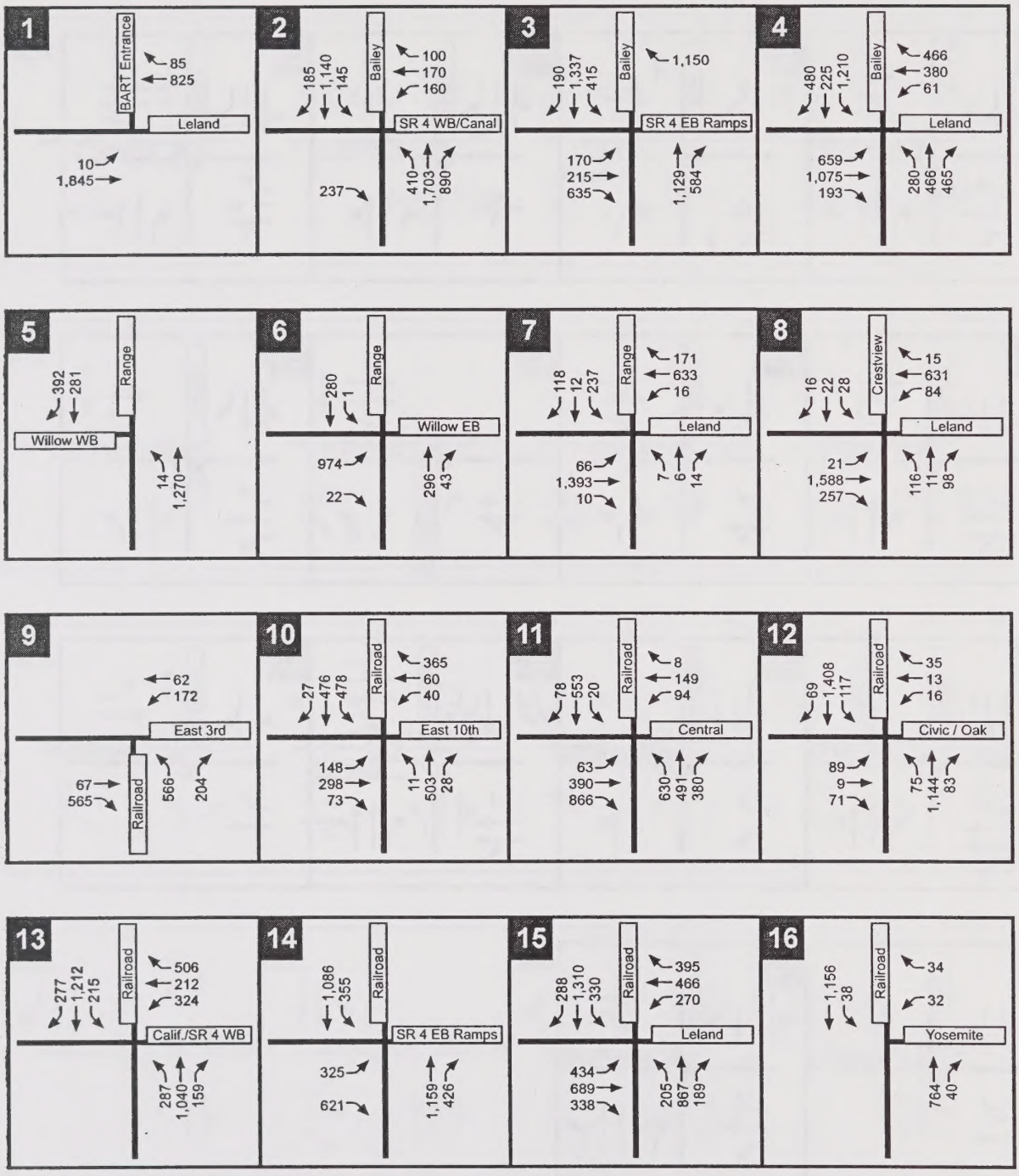


Figure 2A — **2025 PM PEAK HOUR VOLUMES**

1125-21B

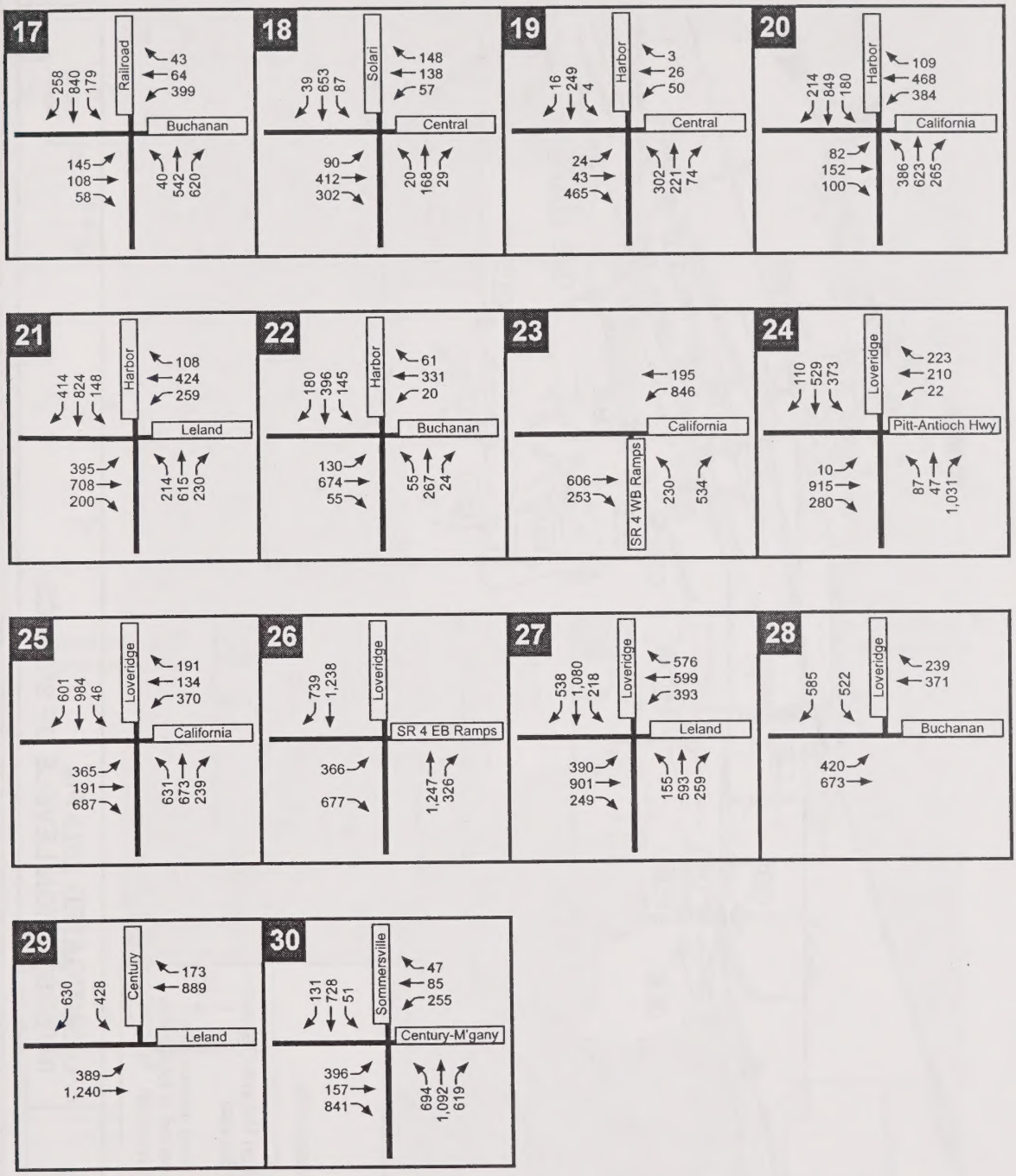


Figure 2B — **2025 PM PEAK HOUR VOLUMES**

1125-22B

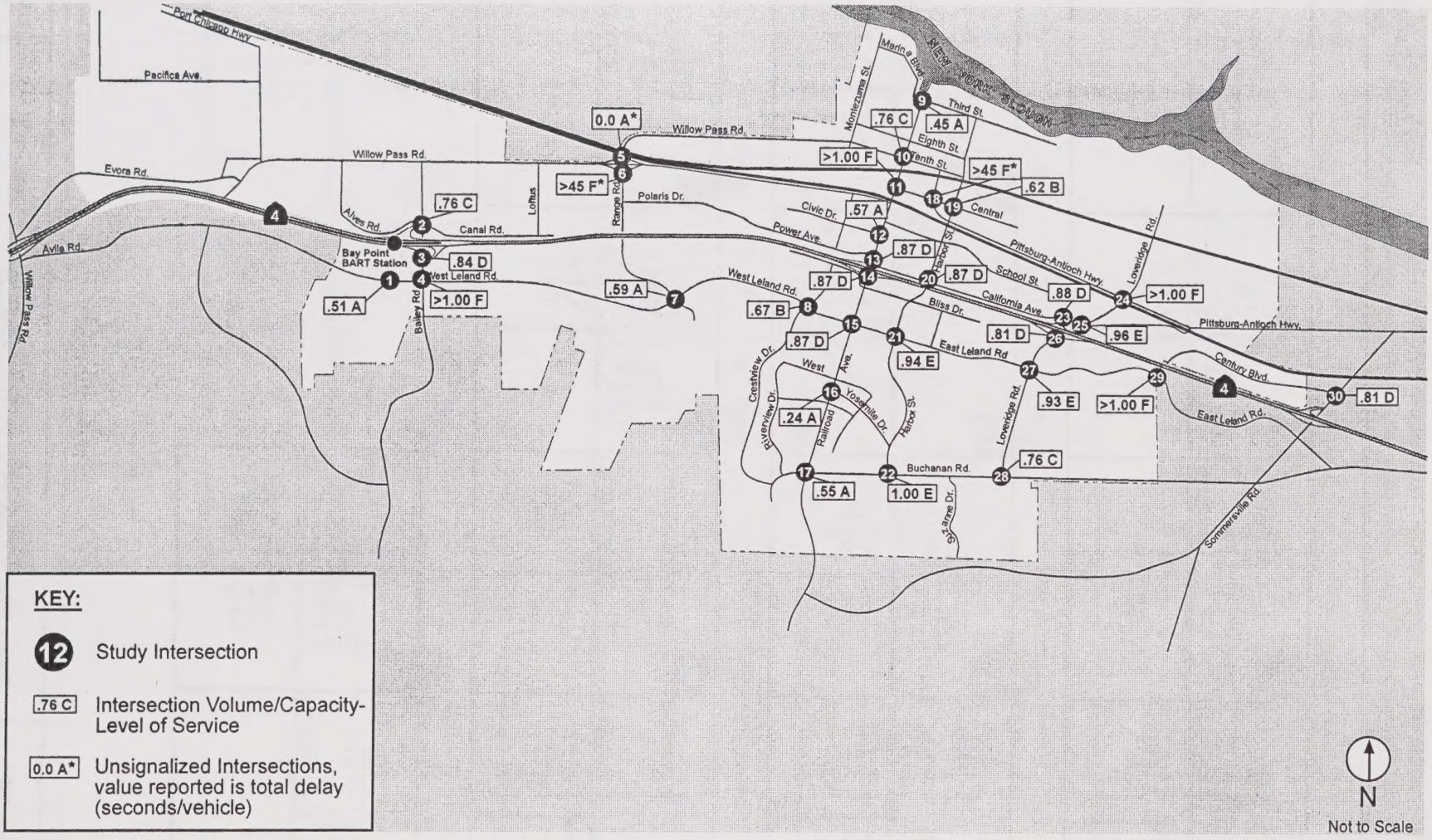
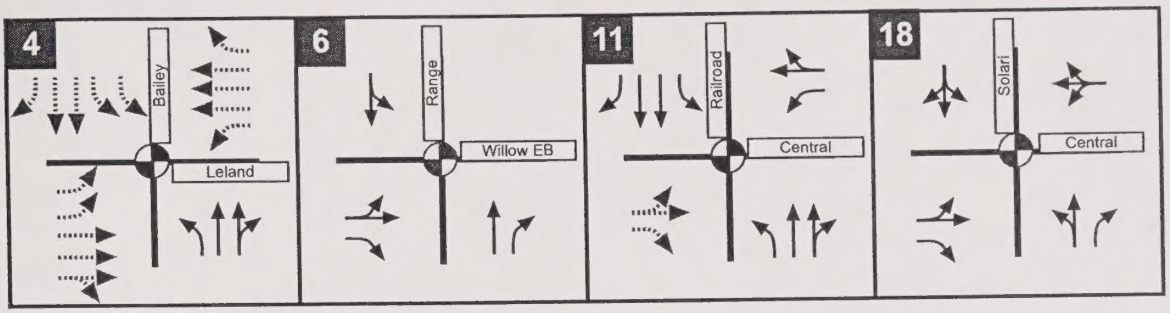
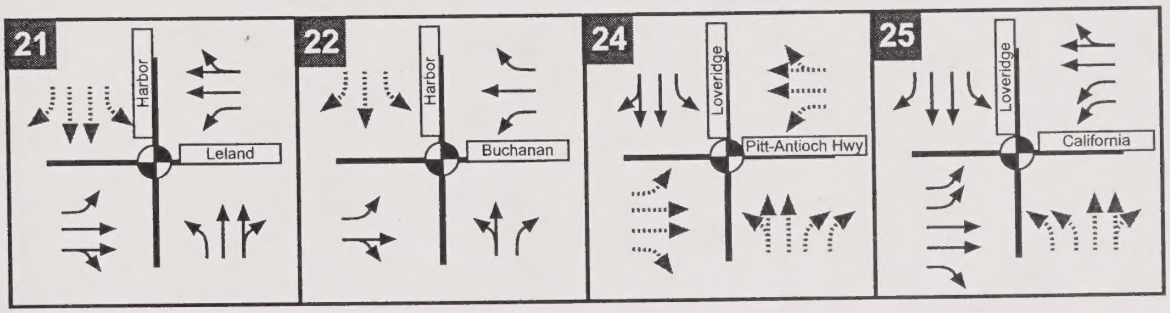


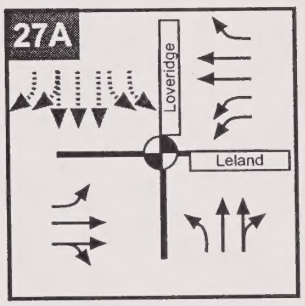
Figure 3
1125-31

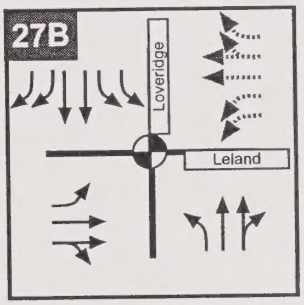
UNMITIGATED 2025 PM INTERSECTION LEVELS OF SERVICE



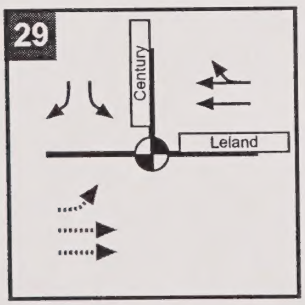


Intersection 27
Alternative A





Intersection 27
Alternative B



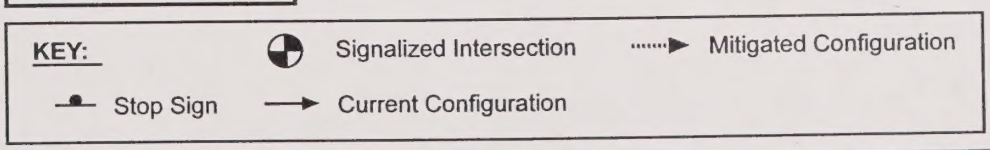


Figure 4
1125-25B

MITIGATED LANE CONTROL AND CONFIGURATION

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